Appendix A. NOP and NOP Comments

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San Diego Community College District
City College · Mesa College · Miramar College · College of Continuing Education
Operations, Enterprise Services, and Facilities
Executive Operations Officer
District Architect
Construction Management
Real Property
619-388-6546

San Diego Community College District
Notice of Preparation of a Draft Program Environmental Impact Report for the San Diego Miramar College Master Plan Project

Date: December 12, 2025

Subject: Notice of Preparation of a Draft Program Environmental Impact Report

To: State Clearinghouse, Responsible and Trustee Agencies, Interested Individuals and Organizations

Lead Agency: San Diego Community College District

Project Title: San Diego Miramar College Master Plan Project

NOTICE IS HEREBY GIVEN that the San Diego Community College District (District) will prepare a Program Environmental Impact Report (PEIR) for the San Diego Miramar College Master Plan Project (project). The purpose of this notice is to (1) serve as a Notice of Preparation (NOP) of the PEIR pursuant to the California Environmental Quality Act (CEQA) Guidelines, Section 15082; and (2) advise and solicit comments and suggestions regarding the scope and content of the PEIR to be prepared for the project.

NOTICE OF PREPARATION: The District, as the lead agency under CEQA, is soliciting public and agency input on the scope and content of the PEIR to be prepared for the project. The District requests that responsible and trustee agencies respond in a manner consistent with CEQA Guidelines Section 15082(b). Pursuant to California Public Resources Code Section 21080.4, responsible and trustee agencies must submit any comments in response to this notice no later than 30 days after receipt. The public review period will start on December 12, 2025, and will close on January 12, 2025. A copy of the NOP can be viewed electronically on the District's website at: https://www.sdccd.edu/departments/operations/construction/index.aspx, as well as at the District Planning, Design, and Construction office, 1450 Frazee, Suite 500, San Diego, California 92108.

WRITTEN COMMENTS: We ask that any person wishing to comment on the NOP provide written comments by the end of the public review period at **5:00 p.m., January 12, 2025**. Electronic comments are preferred and can be sent via email to: SDCCDMeasureHH@sdccd.edu with "**NOP Comments for Miramar College Master Plan**" in the subject line. Comments may also be submitted by mail to the following address, provided they are postmarked no later than the close of the public review period:

San Diego Community College District
1450 Frazee, Suite 500
San Diego, California 92108

PROJECT LOCATION: The 120-acre Miramar College campus (project site) is located at 10440 Black Mountain Road, within the central portion of the city of San Diego, California, in the neighborhood of Mira Mesa (Figure 1, Regional Location). The project site is located on Assessor's Parcel Numbers 3181200300 and 3181200400. Regional access to the project site is provided by Interstate 15, located approximately 400 feet east of campus. Local access to the project site is provided by Black Mountain Road to the west, Hillery Drive to the north, Gold Coast Drive to the south, and North Campus Drive and South Campus Drive to the east (Figure 2, Project Location).

PROJECT BACKGROUND: The District is undertaking a comprehensive improvement and building program to make upgrades and repairs to existing buildings and construct new facilities to improve the safety and educational experience of students, faculty, and staff at several campuses in accordance with Measure HH. In 2024, voters passed the $3.5 billion Measure HH Bond Program to provide funding to upgrade, repair, and renovate classrooms and facilities at Miramar, San Diego City, Mesa, and Continuing Education Colleges.

The Miramar College Facilities Path to 2035 (Master Plan) was finalized on April 18, 2022, through an engaged planning process that included significant participation from Miramar College students, faculty, staff, and community members from the surrounding area. The Master Plan details proposed campus-wide improvements at Miramar College to replace aging buildings and enhance campus connectivity. The designs and concepts presented in the Master Plan are conceptual and intended to serve as a framework for the future detailed design of campus improvements as funding becomes available.

PROPOSED PROJECT: The project consists of demolition, construction, and renovation of existing campus buildings and facilities on the 120-acre campus. The projects would generally demolish existing aging facilities on the campus and replace them with more modern facilities that accommodate existing programming. As the Master Plan is conceptual in nature, the exact architectural programming and design of each project would be developed during project implementation in coordination with user groups. Specific projects identified for development under the Master Plan include:

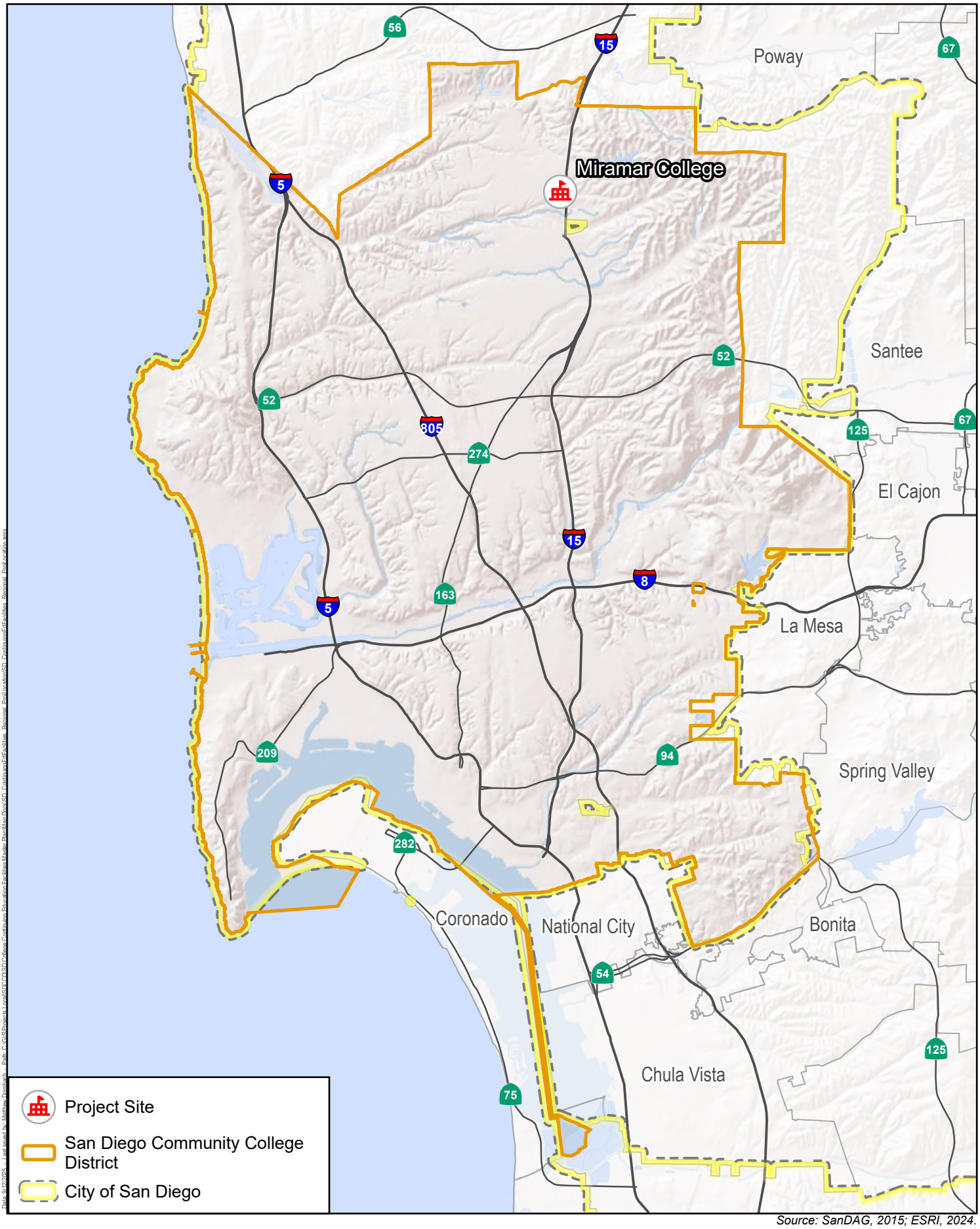
- English, Gallery and Performing Arts Center Building
- Early Education Center Building
- South Campus Drive and North Campus Drive Connection
- Welcome and Multicultural Center Building
- Parking Structure with Athletic Facilities
- Science and Automotive S-3 through S-6 Building Modernizations
- Miramar College Driveway Modification
- Athletics Building and Courts
- Hourglass Field Modernization
- STEM Lab and Student Health Center Building
- North Campus Drive Street Parking
- Vernal Pool Community Trail Extension

Campus-wide improvements related to utility infrastructure and circulation are also part of the Master Plan and could be implemented in coordination with the projects listed above or undertaken as campus-wide efforts. Interior renovations and minor construction could also occur throughout existing campus buildings. The English, Gallery and Performing Arts Center Building, Early Education Center Building, and South Campus Drive and North Campus Drive Connection projects are anticipated to be designed and constructed in the near term. No specific timing or phasing is identified for the remaining projects or campus-wide improvements.

POTENTIAL ENVIRONMENTAL EFFECTS: In compliance with CEQA Guidelines, Sections 15060(d) and 15082, the District will not be preparing an initial study and will begin work directly on the Draft PEIR. CEQA Guidelines, Section 15168, states that a PEIR may be prepared on a series of actions that can be characterized as one large project and are related either (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects that can be mitigated in similar ways. The PEIR will be prepared in accordance with the requirements of the CEQA Statutes and Guidelines, as amended. Pursuant to CEQA Guidelines Section 15146, the degree of specificity in the PEIR will correspond to the degree of specificity involved in the Master Plan and known project designs. The PEIR will focus on the environmental effects that can be expected to occur from implementation of the Master Plan, including defined near-term projects, but will not be as detailed regarding the long-term development or construction projects that may follow. However, the PEIR can serve to streamline environmental review for future projects, including updates to the Master Plan that may be necessary to ensure consistency with the scope and purpose of the Master Plan.

The District's preliminary review anticipates that the project would not result in potentially significant impacts as it relates to Aesthetics, Agriculture and Forestry Resources, Energy, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire impact areas. The District will focus on potentially significant effects of the project in the PEIR while briefly explaining the reasons that other effects will not be potentially significant. The District anticipates that the project could result in potentially significant impacts for the following impact areas: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Noise, Transportation, and Tribal Cultural Resources.

The Draft PEIR will address the short- and long-term direct, indirect, and cumulative effects of the project on the environment. Where feasible, mitigation measures will be proposed for impacts that are determined to be potentially significant. In addition, in accordance with CEQA Guidelines Section 15126, the PEIR will describe a range of reasonable alternatives to the project that would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.



Source: SanDAG, 2015; ESRI, 2024.

Harris & Associates

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Miles

Figure 1

Regional Location

San Diego Miramar College Master Plan



Source: Maxar Imagery, 2023.

Harris & Associates

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Feet

Figure 2

Project Location

San Diego Miramar College Master Plan

Date: 9/12/2025 - Last saved by Matthew.Dontbeach - Path: C:\GIS\Projects Local\SDCCD\Miramar\Map Docs\Miramar_BRTR\Miramar_BRTR.aprx

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NAHC HEADQUARTERS
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nahc@nahc.ca.gov

December 11, 2025

Emily Perez
San Diego Community College District
1450 Frazee Road
Suite 500
San Diego CA 92108

Re: 2025120515 San Diego Miramar College Master Plan Project, San Diego County

Dear Ms. Perez:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@NAHC.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

AMY HARBERT
DIRECTOR

HEATHER BUONOMO
DIRECTOR OF ENVIRONMENTAL HEALTH

DEPARTMENT OF ENVIRONMENTAL HEALTH AND QUALITY
Vector Control Program
5570 Overland Avenue Suite 102, San Diego, CA 92123
(858) 694-2888
www.sdvector.com

December 19, 2025

San Diego Community College District
1450 Frazee, Suite 500
San Diego, CA 92108

COMMENTS ON THE SAN DIEGO COLLEGE OF CONTINUING EDUCATION FACILITIES MASTER PLAN

Via e-mail: SDCCDMeasureHH@sdccd.edu

To Whom It May Concern:

Thank you for the opportunity to comment on the draft Environmental Impact Report for the above-referenced project. The County of San Diego Vector Control Program (VCP) is responsible for the protection of public health through the surveillance and control of mosquitoes that are vectors for human disease including West Nile virus (WNV). The VCP has completed their review and has the following comments regarding the proposed project.

1. The VCP respectfully requests that the project address potential impacts from possible mosquito breeding sources created by the project and that the project be designed and constructed in a manner to minimize those impacts. Specifically, ensure construction-related depressions created by grading activities, vehicle tires, and excavation do not result in depressions that will hold standing water. In addition, ensure drains, BMPs, stormwater capture systems, and other structures do not create a potential mosquito breeding source. Any area that is capable of accumulating and holding at least ½ inch of water for more than 96 hours can support mosquito breeding and development. Finally, if habitat remediation is required for the project, the design should be consistent with guidelines for preventing mosquito habitat creation.

2. Please note, the VCP has the authority pursuant to state law and County Code to order the abatement of any mosquito breeding that does occur either during construction or after the project is completed that is determined to be a vector breeding public nuisance. The VCP will exert that authority as necessary to protect public health if the project is not designed and constructed to prevent such breeding.

3. For your information, the County of San Diego Guidelines for Determining Significance for Vectors can be accessed at http://www.sandiegocounty.gov/content/dam/sdc/pds/docs/vector_guidelines.pdf and the

California Department of Public Health Best Management Practices for Mosquito Control in California is available at https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/MosquitoesandMosquitoBorneDiseases.aspx#

The VCP appreciates the opportunity to participate in the environmental review process for this project. If you have any questions regarding these comments, please contact Daniel Valdez at 858-688-3722 or by e-mail at Daniel.Valdez@sdcounty.ca.gov.

Sincerely,

DANIEL VALDEZ, Registered Environmental Health Specialist
Vector Control Program

San Diego County Archaeological Society, Inc.

Environmental Review Committee

December 31, 2025

To: San Diego Community College District
1450 Frazee Road, Suite 500
San Diego, California 92108

Subject: Draft Program Environmental Impact Report
San Diego Miramar College Master Plan Project

Dear SDCC District:

Thank you for the Notice of Preparation for the subject project, received by this Society this month.

We are pleased to note the inclusion of cultural resources in the list of subject areas to be addressed in the DPEIR, and look forward to reviewing it during the upcoming public comment period. To that end, please include us in the notice of availability of the DPEIR.

SDCAS appreciates being included in the District's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 San Diego, CA 92138-1106 (858) 538-0935

Outlook

FW: CEQA Comments for San Diego Miramar College Master Plan Project

From Measure HH Administrator <SDCCDMeasureHH@sdccd.edu>
Date Fri 1/9/2026 1:46 PM
To Emily Perez <eperez@sdccd.edu>

😊

Ursula

From: Raphael, Rita <Rita.Raphael@sdcounty.ca.gov>
Sent: Friday, January 9, 2026 11:32 AM
To: Measure HH Administrator <SDCCDMeasureHH@sdccd.edu>
Subject: CEQA Comments for San Diego Miramar College Master Plan Project
Importance: High

[EXTERNAL Email: Do not click any links or open attachments if you do not trust the sender and know the content is safe.]

Hi,

I hope all is well, kindly find below the comments from DEHQ/Hazard Materials division regarding **(Comments for San Diego Miramar College Master Plan Project)**

HMD Comments:

1. **PLAN CHECK**: Due to the building and construction this project proposes, the owner(s)/operator(s) may be required to submit a Hazardous Materials Questionnaire to the Hazardous Materials Division (HMD) and complete a HMD Hazardous Materials Plan Check review prior to issuance of a certificate of occupancy by the Building Department. Additional information on Plan Check requirements can be found on our website at: Hazardous Materials Plan Check (sandiegocounty.gov)

2. **HAZARDOUS MATERIALS BUSINESS PLAN:** This proposal could result in facilities that store and/or handle 55 gallons or more of hazardous materials and/or generate any amount of hazardous waste or medical waste. If chemicals/hazardous materials/hazardous wastes stored in project will hold a volume greater than or equal to 55 gallons, 500 pounds or 200 cubic feet each (e.g. gasoline, diesel fuel, lubricating oil, grease, cleaning products, landscaping chemicals and fertilizers, and solvents, etc.), the facility owner/operators(s) are required to submit a Hazardous Materials Questionnaire to the Hazardous Materials Division (HMD) and complete a Hazardous Materials Plan Check review prior to operation. Any proposed activities involving the storage and handling of hazardous materials will require the owner/operator and/or contractor(s) to comply with local and state laws and regulations. Additional information on HMBP requirements can be found on our website at: HMBP (sandiegocounty.gov)

3. **HAZARDOUS WASTE:** All construction-related hazardous wastes (e.g. waste gasoline, waste diesel fuel, waste lubricating oil/grease, waste cleaning products, waste landscaping chemicals and fertilizers, and waste solvents, etc.) generated and stored onsite must be properly labeled and handled in manner to prevent release to the environment. In addition, the owner/operator must ensure any hazardous wastes generated onsite during construction is properly disposed by registered hazardous waste transporter and compliant with local and state laws and regulations. Additional information on Hazardous Waste requirements can be found on our website at: Hazardous Waste (sandiegocounty.gov)

4. **ABOVEGROUND PETROLEUM STORAGE:** If one operation has greater than or equal to 1,320 gallons of petroleum (e.g. gasoline, diesel, oil, used oil, etc.) stored in aboveground tanks and containers 55-gallons or greater in size then they are subject to regulatory requirements under the California Aboveground Petroleum Storage Act (APSA), and a Spill Prevention, Control and Countermeasures (SPCC) Plan may be required. IMPORTANT: Facilities storing an aggregate of 10,000 or more gallons of petroleum must have their SPCC plan certified by a professional engineer. Additional information on APSA can be found on our website at: APSA (sandiegocounty.gov)

5. **UNDERGROUND STORAGE TANKS:** If an underground storage tank (UST) that previously held a hazardous substance is unexpectedly discovered during the Project, the property owner/operator shall apply to the HMD for a removal permit in accordance with state law before removing the tank and connected piping. Additional information can be found on our website at: UST Plan Check

6. **CONTAMINATED SOIL:** If it is discovered that any hazardous materials and or waste has been released to the environment before or during the project, the contaminated environmental media (e.g. soil) must be removed and property managed and disposed. A Voluntary Assistance Project (VAP) may need to be initiated to ensure the hazardous materials/waste release has been properly cleaned up. See the HMD's VAP website for additional information: Voluntary Assistance Program (sandiegocounty.gov)

Please note, the HMD has the authority pursuant to state law and County Code to regulate facilities that handle or store hazardous materials and/or generate hazardous/medical wastes. The HMD will apply that authority as necessary to protect public health and the environment. Additional information about HMD can be found on our website at: Hazardous Materials Division (sandiegocounty.gov)

Respectfully ,

Rita Raphael, Office Support Specialist
Department of Environmental Health and Quality
Policy, Outreach and Data
SanDiegoCounty.gov | News Updates | Engage

From: Yliana Ortega <Yliana.Ortega@weareharris.com>
Sent: Thursday, December 11, 2025 9:46 PM
Subject: [External] Notice of Preparation - San Diego Miramar College Master Plan Project
Importance: High

To Responsible Agencies and Interested Parties,

In accordance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines, the **San Diego Community College District**, as the lead agency under CEQA, is providing a Notice of Preparation

(NOP) of a **Draft Program Environmental Impact Report for the San Diego Miramar College Master Plan Project**. Please see the attached **Notice of Preparation** for project information.

The Notice of Preparation is also available for review online at: **https://www.sdccd.edu/departments/operations/construction/index.aspx** as well as at the District Planning, Design, and Construction office, 1450 Frazee, Suite 500, San Diego, California 92108.

The public review period will begin on **Friday, December 12, 2025,** and end on **Monday, January 12, 2026**. Any interested parties or agencies may comment on this matter by submitting comments via email to **SDCCDMeasureHH@sdccd.edu** or via postal mail to:

San Diego Community College District
1450 Frazee, Suite 500
San Diego, California 92108

Please indicate **"CEQA Comments for San Diego Miramar College Master Plan Project"** in the subject line. Written comments on the NOP should be submitted no later than 5:00 PM on Monday, January 12, 2026.

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Miramar LT Projects
Construction Start Date	1/2/2032
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60000
Precipitation (days)	9.80000
Location	10440 Black Mountain Rd, San Diego, CA 92126, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6362
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Manufacturing	30.0000	1000sqft	0.68871	30,000.0	0.00000	0.00000	—	C-1 Bldg
General Office Building	45.0000	1000sqft	1.03306	45,000.0	0.00000	0.00000	—	Welcome Center

Enclosed Parking with Elevator	300.000	Space	2.70000	120,000	0.00000	0.00000	—	—
City Park	2.00000	Acre	2.00000	0.00000	0.00000	0.00000	—	Rooftop Fields
Health Club	25.0000	1000sqft	0.57392	25,000.0	0.00000	0.00000	—	Athletic center
Research & Development	20.0000	1000sqft	0.45914	20,000.0	0.00000	0.00000	—	STEM Lab
Parking Lot	20.0000	Space	0.18000	0.00000	0.00000	0.00000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.17177	8.98925	16.1166	0.03001	0.23061	1.04928	1.27989	0.21269	0.25649	0.46919	—	3,996.38	3,996.38	0.13528	0.13762	2.68359	4,043.45
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.3843	26.1146	26.2143	0.09316	0.92544	19.8050	20.7304	0.85140	10.1371	10.9885	—	11,337.7	11,337.7	0.41812	1.27991	0.29313	11,729.8
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.78879	7.82358	11.8334	0.02509	0.22182	2.07061	2.29243	0.20488	0.71077	0.91566	—	3,201.45	3,201.45	0.11403	0.16592	0.93913	3,254.68
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.32645	1.42780	2.15960	0.00458	0.04048	0.37789	0.41837	0.03739	0.12972	0.16711	—	530.037	530.037	0.01888	0.02747	0.15548	538.850

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	1.17177	8.98925	16.1166	0.03001	0.23061	1.04928	1.27989	0.21269	0.25649	0.46919	—	3,996.38	3,996.38	0.13528	0.13762	2.68359	4,043.45
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	2.74871	26.1146	26.2143	0.09316	0.92544	19.8050	20.7304	0.85140	10.1371	10.9885	—	11,337.7	11,337.7	0.41812	1.27991	0.29313	11,729.8
2033	30.3843	8.78969	15.6469	0.03001	0.21019	1.04928	1.25946	0.19390	0.25649	0.45040	—	3,917.05	3,917.05	0.13074	0.13762	0.06050	3,961.39
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.93331	7.82358	11.8334	0.02509	0.22182	2.07061	2.29243	0.20488	0.71077	0.91566	—	3,201.45	3,201.45	0.11403	0.16592	0.93913	3,254.68
2033	1.78879	0.90219	1.59797	0.00268	0.02316	0.07886	0.10202	0.02134	0.01912	0.04045	—	342.754	342.754	0.01183	0.00920	0.07294	345.865
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.17033	1.42780	2.15960	0.00458	0.04048	0.37789	0.41837	0.03739	0.12972	0.16711	—	530.037	530.037	0.01888	0.02747	0.15548	538.850
2033	0.32645	0.16465	0.29163	0.00049	0.00423	0.01439	0.01862	0.00389	0.00349	0.00738	—	56.7469	56.7469	0.00196	0.00152	0.01208	57.2619

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.89545	7.87082	12.7872	0.02340	0.22400	0.00000	0.22400	0.20608	0.00000	0.20608	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	2.70320	22.2821	25.7487	0.04890	0.92544	19.6570	20.5824	0.85140	10.1024	10.9538	—	5,296.00	5,296.00	0.21483	0.04297	0.00000	5,314.17
2033	30.3360	7.66646	12.7788	0.02340	0.20357	0.00000	0.20357	0.18729	0.00000	0.18729	—	2,396.83	2,396.83	0.09723	0.01945	0.00000	2,405.06
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.76620	6.62177	9.83579	0.01799	0.21171	1.32442	1.53613	0.19477	0.52467	0.71944	—	1,864.61	1,864.61	0.07564	0.01513	0.00000	1,871.01
2033	1.76830	0.83103	1.37441	0.00228	0.02275	0.00000	0.02275	0.02093	0.00000	0.02093	—	235.495	235.495	0.00955	0.00191	0.00000	236.303
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.13983	1.20847	1.79503	0.00328	0.03864	0.24171	0.28034	0.03555	0.09575	0.13130	—	308.707	308.707	0.01252	0.00250	0.00000	309.766
2033	0.32272	0.15166	0.25083	0.00042	0.00415	0.00000	0.00415	0.00382	0.00000	0.00382	—	38.9889	38.9889	0.00158	0.00032	0.00000	39.1227

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.27632	1.11843	3.32934	0.00662	0.00662	1.04928	1.05589	0.00662	0.25649	0.26311	—	1,599.54	1,599.54	0.03805	0.11818	2.68359	1,638.39
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.26835	9.88734	4.38017	0.06063	0.11548	2.55467	2.67015	0.11548	0.69443	0.80991	—	7,911.24	7,911.24	0.27913	1.25211	0.29313	8,291.64
2033	0.26419	1.12323	2.86816	0.00662	0.00662	1.04928	1.05589	0.00662	0.25649	0.26311	—	1,520.21	1,520.21	0.03351	0.11818	0.06050	1,556.33
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.16711	1.20181	1.99763	0.00710	0.01011	0.74619	0.75630	0.01011	0.18610	0.19621	—	1,336.85	1,336.85	0.03840	0.15079	0.93913	1,383.68
2033	0.02049	0.07116	0.22356	0.00040	0.00040	0.07886	0.07926	0.00040	0.01912	0.01952	—	107.259	107.259	0.00228	0.00729	0.07294	109.562
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2032	0.03050	0.21933	0.36457	0.00130	0.00184	0.13618	0.13802	0.00184	0.03396	0.03581	—	221.330	221.330	0.00636	0.02496	0.15548	229.084

2033	0.00374	0.01299	0.04080	0.00007	0.00007	0.01439	0.01447	0.00007	0.00349	0.00356	—	17.7580	17.7580	0.00038	0.00121	0.01208	18.1393

3. Construction Emissions Details

3.1. Demolition (2032)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.91711	16.2273	16.8526	0.03253	0.61591	—	0.61591	0.56663	—	0.56663	—	3,426.45	3,426.45	0.13899	0.02780	—	3,438.21
Demolition	—	—	—	—	—	7.25953	7.25953	—	1.09930	1.09930	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10505	0.88917	0.92343	0.00178	0.03375	—	0.03375	0.03105	—	0.03105	—	187.751	187.751	0.00762	0.00152	—	188.395
Demolition	—	—	—	—	—	0.39778	0.39778	—	0.06024	0.06024	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01917	0.16227	0.16853	0.00033	0.00616	—	0.00616	0.00567	—	0.00567	—	31.0843	31.0843	0.00126	0.00025	—	31.1909

Demolition	—	—	—	—	—	0.07260	0.07260	—	0.01099	0.01099	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03901	0.02839	0.39906	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	118.843	118.843	0.00198	0.00495	0.00662	120.375
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.13569	9.85895	3.98111	0.06063	0.11548	2.42781	2.54329	0.11548	0.66469	0.78017	—	7,792.40	7,792.40	0.27715	1.24716	0.28651	8,171.27
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00214	0.00154	0.02212	0.00000	0.00000	0.00691	0.00691	0.00000	0.00162	0.00162	—	6.57005	6.57005	0.00011	0.00027	0.00605	6.65966
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00775	0.54006	0.21688	0.00332	0.00633	0.13239	0.13872	0.00633	0.03626	0.04259	—	426.845	426.845	0.01519	0.06834	0.26150	447.851
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00039	0.00028	0.00404	0.00000	0.00000	0.00126	0.00126	0.00000	0.00030	0.00030	—	1.08775	1.08775	0.00002	0.00004	0.00100	1.10258
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00141	0.09856	0.03958	0.00061	0.00115	0.02416	0.02532	0.00115	0.00662	0.00777	—	70.6691	70.6691	0.00251	0.01131	0.04329	74.1468

3.2. Site Preparation (2032)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.70320	22.2821	25.7487	0.04890	0.92544	—	0.92544	0.85140	—	0.85140	—	5,296.00	5,296.00	0.21483	0.04297	—	5,314.17
Dust From Material Movement	—	—	—	—	—	19.6570	19.6570	—	10.1024	10.1024	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07406	0.61047	0.70545	0.00134	0.02535	—	0.02535	0.02333	—	0.02333	—	145.096	145.096	0.00589	0.00118	—	145.594
Dust From Material Movement	—	—	—	—	—	0.53855	0.53855	—	0.27678	0.27678	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01352	0.11141	0.12874	0.00024	0.00463	—	0.00463	0.00426	—	0.00426	—	24.0223	24.0223	0.00097	0.00019	—	24.1047
Dust From Material Movement	—	—	—	—	—	0.09829	0.09829	—	0.05051	0.05051	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04551	0.03312	0.46557	0.00000	0.00000	0.14800	0.14800	0.00000	0.03469	0.03469	—	138.651	138.651	0.00231	0.00578	0.00773	140.437
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00125	0.00090	0.01290	0.00000	0.00000	0.00403	0.00403	0.00000	0.00094	0.00094	—	3.83253	3.83253	0.00006	0.00016	0.00353	3.88480
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00023	0.00016	0.00235	0.00000	0.00000	0.00074	0.00074	0.00000	0.00017	0.00017	—	0.63452	0.63452	0.00001	0.00003	0.00058	0.64317
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2032)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.37620	11.3975	16.4237	0.02732	0.44911	—	0.44911	0.41318	—	0.41318	—	2,959.08	2,959.08	0.12003	0.02401	—	2,969.24
Dust From Material Movement	—	—	—	—	—	7.08259	7.08259	—	3.42474	3.42474	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07541	0.62452	0.89993	0.00150	0.02461	—	0.02461	0.02264	—	0.02264	—	162.142	162.142	0.00658	0.00132	—	162.698
Dust From Material Movement	—	—	—	—	—	0.38809	0.38809	—	0.18766	0.18766	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01376	0.11398	0.16424	0.00027	0.00449	—	0.00449	0.00413	—	0.00413	—	26.8444	26.8444	0.00109	0.00022	—	26.9365
Dust From Material Movement	—	—	—	—	—	0.07083	0.07083	—	0.03425	0.03425	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03901	0.02839	0.39906	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	118.843	118.843	0.00198	0.00495	0.00662	120.375
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00214	0.00154	0.02212	0.00000	0.00000	0.00691	0.00691	0.00000	0.00162	0.00162	—	6.57005	6.57005	0.00011	0.00027	0.00605	6.65966
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00039	0.00028	0.00404	0.00000	0.00000	0.00126	0.00126	0.00000	0.00030	0.00030	—	1.08775	1.08775	0.00002	0.00004	0.00100	1.10258
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Building Construction (2032)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89545	7.87082	12.7872	0.02340	0.22400	—	0.22400	0.20608	—	0.20608	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.89545	7.87082	12.7872	0.02340	0.22400	—	0.22400	0.20608	—	0.20608	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.51169	4.49761	7.30699	0.01337	0.12800	—	0.12800	0.11776	—	0.11776	—	1,369.62	1,369.62	0.05556	0.01111	—	1,374.32
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09338	0.82081	1.33353	0.00244	0.02336	—	0.02336	0.02149	—	0.02149	—	226.756	226.756	0.00920	0.00184	—	227.534
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25149	0.17224	2.85680	0.00000	0.00000	0.79752	0.79752	0.00000	0.18694	0.18694	—	790.878	790.878	0.01039	0.00624	1.60492	794.601
Vendor	0.02483	0.94619	0.47254	0.00662	0.00662	0.25176	0.25837	0.00662	0.06956	0.07617	—	808.666	808.666	0.02766	0.11194	1.07867	843.794
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24525	0.17848	2.50878	0.00000	0.00000	0.79752	0.79752	0.00000	0.18694	0.18694	—	747.128	747.128	0.01247	0.03112	0.04164	756.756
Vendor	0.02309	0.98598	0.48642	0.00662	0.00662	0.25176	0.25837	0.00662	0.06956	0.07617	—	809.470	809.470	0.02766	0.11194	0.02791	843.547

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14015	0.10080	1.45012	0.00000	0.00000	0.45286	0.45286	0.00000	0.10610	0.10610	—	430.739	430.739	0.00713	0.01778	0.39653	436.613
Vendor	0.01369	0.55698	0.27349	0.00378	0.00378	0.14310	0.14688	0.00378	0.03956	0.04334	—	462.288	462.288	0.01580	0.06397	0.26548	482.011
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02558	0.01840	0.26465	0.00000	0.00000	0.08265	0.08265	0.00000	0.01936	0.01936	—	71.3138	71.3138	0.00118	0.00294	0.06565	72.2863
Vendor	0.00250	0.10165	0.04991	0.00069	0.00069	0.02612	0.02681	0.00069	0.00722	0.00791	—	76.5371	76.5371	0.00262	0.01059	0.04395	79.8024
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2033)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.87711	7.66646	12.7788	0.02340	0.20357	—	0.20357	0.18729	—	0.18729	—	2,396.83	2,396.83	0.09723	0.01945	—	2,405.06
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05321	0.46509	0.77523	0.00142	0.01235	—	0.01235	0.01136	—	0.01136	—	145.405	145.405	0.00590	0.00118	—	145.904
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00971	0.08488	0.14148	0.00026	0.00225	—	0.00225	0.00207	—	0.00207	—	24.0734	24.0734	0.00098	0.00020	—	24.1560
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.24110	0.17640	2.39671	0.00000	0.00000	0.79752	0.79752	0.00000	0.18694	0.18694	—	738.816	738.816	0.01247	0.00624	0.03665	741.023
Vendor	0.02309	0.94683	0.47145	0.00662	0.00662	0.25176	0.25837	0.00662	0.06956	0.07617	—	781.397	781.397	0.02104	0.11194	0.02384	815.305
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01437	0.01058	0.14753	0.00000	0.00000	0.04808	0.04808	0.00000	0.01126	0.01126	—	45.2191	45.2191	0.00076	0.00038	0.03692	45.3877
Vendor	0.00145	0.05716	0.02818	0.00040	0.00040	0.01519	0.01559	0.00040	0.00420	0.00460	—	47.3747	47.3747	0.00128	0.00679	0.02405	49.4543
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00262	0.00193	0.02692	0.00000	0.00000	0.00877	0.00877	0.00000	0.00206	0.00206	—	7.48654	7.48654	0.00013	0.00006	0.00611	7.51445
Vendor	0.00027	0.01043	0.00514	0.00007	0.00007	0.00277	0.00285	0.00007	0.00077	0.00084	—	7.84342	7.84342	0.00021	0.00112	0.00398	8.18773
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Paving (2033)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.58716	5.91413	9.83565	0.01395	0.18283	—	0.18283	0.16820	—	0.16820	—	1,510.63	1,510.63	0.06128	0.01226	—	1,515.81
Paving	0.37728	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03217	0.32406	0.53894	0.00076	0.01002	—	0.01002	0.00922	—	0.00922	—	82.7742	82.7742	0.00336	0.00067	—	83.0583
Paving	0.02067	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00587	0.05914	0.09836	0.00014	0.00183	—	0.00183	0.00168	—	0.00168	—	13.7042	13.7042	0.00056	0.00011	—	13.7512
Paving	0.00377	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03835	0.02806	0.38124	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	117.521	117.521	0.00198	0.00099	0.00583	117.872
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00207	0.00152	0.02120	0.00000	0.00000	0.00691	0.00691	0.00000	0.00162	0.00162	—	6.49677	6.49677	0.00011	0.00005	0.00530	6.52099
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00028	0.00387	0.00000	0.00000	0.00126	0.00126	0.00000	0.00030	0.00030	—	1.07561	1.07561	0.00002	0.00001	0.00088	1.07962
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Architectural Coating (2033)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09150	0.76425	1.09943	0.00173	0.00705	—	0.00705	0.00649	—	0.00649	—	133.516	133.516	0.00542	0.00108	—	133.975
Architectural Coatings	30.2445	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00501	0.04188	0.06024	0.00009	0.00039	—	0.00039	0.00036	—	0.00036	—	7.31597	7.31597	0.00030	0.00006	—	7.34108
Architectural Coatings	1.65723	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00091	0.00764	0.01099	0.00002	0.00007	—	0.00007	0.00006	—	0.00006	—	1.21124	1.21124	0.00005	0.00001	—	1.21540
Architectural Coatings	0.30245	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04822	0.03528	0.47934	0.00000	0.00000	0.15950	0.15950	0.00000	0.03739	0.03739	—	147.763	147.763	0.00249	0.00125	0.00733	148.205
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00260	0.00191	0.02665	0.00000	0.00000	0.00868	0.00868	0.00000	0.00203	0.00203	—	8.16861	8.16861	0.00014	0.00007	0.00667	8.19906
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00047	0.00035	0.00486	0.00000	0.00000	0.00158	0.00158	0.00000	0.00037	0.00037	—	1.35241	1.35241	0.00002	0.00001	0.00110	1.35745
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/2/2032	1/30/2032	5.00000	20.0000	—
Site Preparation	Site Preparation	1/31/2032	2/14/2032	5.00000	10.00000	—
Grading	Grading	2/15/2032	3/14/2032	5.00000	20.0000	—
Building Construction	Building Construction	3/15/2032	1/31/2033	5.00000	230.000	—
Paving	Paving	2/1/2033	3/1/2033	5.00000	20.0000	—
Architectural Coating	Architectural Coating	3/2/2033	3/30/2033	5.00000	20.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Pavers	Diesel	Average	2.00000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	8.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	8.00000	36.0000	0.38000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	11.9700	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63000	HHDT,MHDT
Demolition	Hauling	130.950	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	11.9700	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	11.9700	LDA,LDT1,LDT2
Grading	Vendor	—	7.63000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	94.3000	11.9700	LDA,LDT1,LDT2
Building Construction	Vendor	39.3360	7.63000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	15.0000	11.9700	LDA,LDT1,LDT2
Paving	Vendor	—	7.63000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	18.8600	11.9700	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	185,293	60,588.1	7,527.17

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	227,655	0.00000
Site Preparation	0.00000	0.00000	15.0000	0.00000	0.00000
Grading	0.00000	0.00000	20.0000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	2.88000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Manufacturing	0.00000	0%
Paving	General Office Building	0.00000	0%
Paving	Enclosed Parking with Elevator	2.70000	100%
Paving	City Park	0.00000	0%
Paving	Health Club	0.00000	0%
Paving	Research & Development	0.00000	0%
Paving	Parking Lot	0.18000	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2032	0.00000	588.983	0.03300	0.00400
2033	0.00000	588.983	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2500	annual days of extreme heat
Extreme Precipitation	3.80000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.6600	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A

Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.4505
AQ-PM	42.3273
AQ-DPM	87.2433
Drinking Water	28.9871
Lead Risk Housing	35.2993
Pesticides	0.00000
Toxic Releases	23.5184
Traffic	90.6250
Effect Indicators	—
CleanUp Sites	69.0743
Groundwater	0.00000
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	23.8765
Solid Waste	59.1753
Sensitive Population	—
Asthma	33.5743
Cardio-vascular	31.2438
Low Birth Weights	80.3439
Socioeconomic Factor Indicators	—
Education	53.1258
Housing	79.9113
Linguistic	50.0068
Poverty	63.6432
Unemployment	23.7507

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.66084948
Employed	71.06377518
Median HI	43.00012832
Education	—
Bachelor's or higher	73.80982933
High school enrollment	100
Preschool enrollment	24.38085461
Transportation	—
Auto Access	39.77928911
Active commuting	79.36609778
Social	—
2-parent households	45.52803798
Voting	42.07622225
Neighborhood	—
Alcohol availability	87.46310792
Park access	81.35506224
Retail density	74.66957526
Supermarket access	37.61067625
Tree canopy	21.03169511
Housing	—
Homeownership	5.094315411
Housing habitability	28.16630309
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	62.18401129

Uncrowded housing	41.35762864
Health Outcomes	—
Insured adults	52.48299756
Arthritis	97.1
Asthma ER Admissions	66.4
High Blood Pressure	97.2
Cancer (excluding skin)	89.7
Asthma	88.8
Coronary Heart Disease	97.0
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	94.1
Life Expectancy at Birth	66.5
Cognitively Disabled	68.5
Physically Disabled	68.4
Heart Attack ER Admissions	67.1
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	91.3
Pedestrian Injuries	19.6
Physical Health Not Good	93.2
Stroke	95.7
Health Risk Behaviors	—
Binge Drinking	11.3
Current Smoker	65.4
No Leisure Time for Physical Activity	68.6
Climate Change Exposures	—
Wildfire Risk	2.0
SLR Inundation Area	0.0

Children	40.5
Elderly	96.3
English Speaking	37.2
Foreign-born	79.1
Outdoor Workers	92.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	29.3
Traffic Density	96.5
Traffic Access	23.0
Other Indices	—
Hardship	29.8
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Miramar ST1 - English/Performing Arts Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Miramar ST1 - English/Performing Arts
Construction Start Date	11/22/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60000
Precipitation (days)	9.80000
Location	10440 Black Mountain Rd, San Diego, CA 92126, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6362
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	115.000	1000sqft	2.64004	115,000	0.00000	0.00000	—	—

Other Asphalt Surfaces	17.0000	1000sqft	0.39027	0.00000	0.00000	0.00000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13262	9.55761	14.6205	0.02657	0.30658	0.43186	0.73844	0.28256	0.10628	0.38884	—	3,169.52	3,169.52	0.11977	0.09516	1.88962	3,202.76
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	30.0159	28.0263	28.9094	0.06073	1.17173	7.81424	8.98597	1.07799	3.97465	5.05264	—	7,740.27	7,740.27	0.35942	0.69499	0.22614	7,956.59
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.24634	6.58837	9.91740	0.01789	0.21381	0.37742	0.54443	0.19703	0.10895	0.28980	—	2,120.03	2,120.03	0.08112	0.06140	0.52989	2,140.88
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.22746	1.20238	1.80993	0.00327	0.03902	0.06888	0.09936	0.03596	0.01988	0.05289	—	350.995	350.995	0.01343	0.01016	0.08773	354.448

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	1.13262	9.55761	14.6205	0.02657	0.30658	0.43186	0.73844	0.28256	0.10628	0.38884	—	3,169.52	3,169.52	0.11977	0.09516	1.88962	3,202.76
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	3.11186	28.0263	28.9094	0.06073	1.17173	7.81424	8.98597	1.07799	3.97465	5.05264	—	7,740.27	7,740.27	0.35942	0.69499	0.22614	7,956.59
2028	30.0159	13.8300	17.8298	0.02734	0.56820	2.88907	3.45727	0.52275	1.36538	1.88813	—	3,151.51	3,151.51	0.12275	0.09516	0.04895	3,182.93
2029	30.0099	0.81246	1.34683	0.00173	0.01284	0.06225	0.07509	0.01181	0.01459	0.02640	—	194.832	194.832	0.00671	0.00351	0.00461	196.051
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.18148	1.86203	1.66529	0.00416	0.06759	0.37742	0.44501	0.06106	0.10895	0.17001	—	516.938	516.938	0.02347	0.03883	0.21038	529.306
2028	1.24634	6.58837	9.91740	0.01789	0.21381	0.33062	0.54443	0.19703	0.09277	0.28980	—	2,120.03	2,120.03	0.08112	0.06140	0.52989	2,140.88
2029	1.05709	0.02861	0.04757	0.00006	0.00045	0.00218	0.00263	0.00042	0.00051	0.00093	—	6.88221	6.88221	0.00023	0.00012	0.00270	6.92754
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03312	0.33982	0.30392	0.00076	0.01233	0.06888	0.08121	0.01114	0.01988	0.03103	—	85.5850	85.5850	0.00389	0.00643	0.03483	87.6326
2028	0.22746	1.20238	1.80993	0.00327	0.03902	0.06034	0.09936	0.03596	0.01693	0.05289	—	350.995	350.995	0.01343	0.01016	0.08773	354.448
2029	0.19292	0.00522	0.00868	0.00001	0.00008	0.00040	0.00048	0.00008	0.00009	0.00017	—	1.13943	1.13943	0.00004	0.00002	0.00045	1.14693

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.99143	8.92495	12.9352	0.02340	0.30024	0.00000	0.30024	0.27622	0.00000	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	0.00000	2,405.68
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2027	3.05170	27.9724	28.2794	0.04891	1.17173	7.66623	8.83797	1.07799	3.93995	5.01795	—	5,297.82	5,297.82	0.21490	0.04298	0.00000	5,316.00
2028	29.9911	13.7880	17.3209	0.02734	0.56820	2.76221	3.33041	0.52275	1.33565	1.85840	—	2,960.88	2,960.88	0.12011	0.02402	0.00000	2,971.04
2029	29.9861	0.79416	1.11216	0.00173	0.01284	0.00000	0.01284	0.01181	0.00000	0.01181	—	133.510	133.510	0.00542	0.00108	0.00000	133.968
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.17248	1.55718	1.50966	0.00261	0.06317	0.30619	0.36936	0.05812	0.08982	0.14794	—	277.726	277.726	0.01127	0.00225	0.00000	278.679
2028	1.15540	6.16792	8.90754	0.01589	0.20982	0.04865	0.25846	0.19303	0.02352	0.21655	—	1,631.55	1,631.55	0.06618	0.01324	0.00000	1,637.15
2029	1.05626	0.02797	0.03918	0.00006	0.00045	0.00000	0.00045	0.00042	0.00000	0.00042	—	4.70288	4.70288	0.00019	0.00004	0.00000	4.71902
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03148	0.28419	0.27551	0.00048	0.01153	0.05588	0.06741	0.01061	0.01639	0.02700	—	45.9807	45.9807	0.00187	0.00037	0.00000	46.1385
2028	0.21086	1.12565	1.62563	0.00290	0.03829	0.00888	0.04717	0.03523	0.00429	0.03952	—	270.122	270.122	0.01096	0.00219	0.00000	271.049
2029	0.19277	0.00511	0.00715	0.00001	0.00008	0.00000	0.00008	0.00008	0.00000	0.00008	—	0.77862	0.77862	0.00003	0.00001	0.00000	0.78129

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2028	0.14119	0.63266	1.68524	0.00317	0.00634	0.43186	0.43820	0.00634	0.10628	0.11262	—	772.063	772.063	0.02252	0.07571	1.88962	797.077
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.14152	5.54422	2.62777	0.02819	0.08056	1.25594	1.33650	0.05370	0.33886	0.39256	—	4,313.38	4,313.38	0.22041	0.66719	0.22614	4,517.94
2028	0.13873	0.66661	1.51487	0.00317	0.00634	0.43186	0.43820	0.00634	0.10628	0.11262	—	754.052	754.052	0.02333	0.07571	0.04895	777.245
2029	0.02384	0.01830	0.23468	0.00000	0.00000	0.06225	0.06225	0.00000	0.01459	0.01459	—	61.3226	61.3226	0.00130	0.00243	0.00461	62.0836
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00900	0.30485	0.15563	0.00154	0.00441	0.07123	0.07565	0.00294	0.01913	0.02207	—	239.212	239.212	0.01220	0.03657	0.21038	250.627
2028	0.09094	0.42045	1.00986	0.00200	0.00400	0.28197	0.28597	0.00400	0.06925	0.07325	—	488.475	488.475	0.01494	0.04816	0.52989	503.730

2029	0.00083	0.00064	0.00839	0.00000	0.00000	0.00218	0.00218	0.00000	0.00051	0.00051	—	2.17932	2.17932	0.00004	0.00009	0.00270	2.20852
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00164	0.05564	0.02840	0.00028	0.00081	0.01300	0.01381	0.00054	0.00349	0.00403	—	39.6043	39.6043	0.00202	0.00606	0.03483	41.4941
2028	0.01660	0.07673	0.18430	0.00036	0.00073	0.05146	0.05219	0.00073	0.01264	0.01337	—	80.8726	80.8726	0.00247	0.00797	0.08773	83.3982
2029	0.00015	0.00012	0.00153	0.00000	0.00000	0.00040	0.00040	0.00000	0.00009	0.00009	—	0.36081	0.36081	0.00001	0.00001	0.00045	0.36565

3. Construction Emissions Details

3.1. Demolition (2027)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.21478	19.9005	18.6307	0.03253	0.79594	—	0.79594	0.73226	—	0.73226	—	3,426.90	3,426.90	0.13901	0.02780	—	3,438.66
Demolition	—	—	—	—	—	3.37541	3.37541	—	0.51113	0.51113	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12136	1.09044	1.02086	0.00178	0.04361	—	0.04361	0.04012	—	0.04012	—	187.775	187.775	0.00762	0.00152	—	188.420
Demolition	—	—	—	—	—	0.18495	0.18495	—	0.02801	0.02801	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02215	0.19901	0.18631	0.00033	0.00796	—	0.00796	0.00732	—	0.00732	—	31.0883	31.0883	0.00126	0.00025	—	31.1950
Demolition	—	—	—	—	—	0.03375	0.03375	—	0.00511	0.00511	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05157	0.04621	0.54000	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	129.450	129.450	0.00693	0.00528	0.01149	131.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.08996	5.49801	2.08777	0.02819	0.08056	1.12909	1.20964	0.05370	0.30912	0.36283	—	4,183.93	4,183.93	0.21348	0.66191	0.21465	4,386.73
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00281	0.00251	0.02995	0.00000	0.00000	0.00691	0.00691	0.00000	0.00162	0.00162	—	7.15662	7.15662	0.00036	0.00027	0.01051	7.25701
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00508	0.30133	0.11374	0.00154	0.00441	0.06157	0.06599	0.00294	0.01686	0.01981	—	229.201	229.201	0.01170	0.03620	0.19568	240.475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00051	0.00046	0.00547	0.00000	0.00000	0.00126	0.00126	0.00000	0.00030	0.00030	—	1.18486	1.18486	0.00006	0.00004	0.00174	1.20148
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00093	0.05499	0.02076	0.00028	0.00081	0.01124	0.01204	0.00054	0.00308	0.00361	—	37.9469	37.9469	0.00194	0.00599	0.03240	39.8135

3.2. Site Preparation (2027)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.05170	27.9724	28.2794	0.04891	1.17173	—	1.17173	1.07799	—	1.07799	—	5,297.82	5,297.82	0.21490	0.04298	—	5,316.00
Dust From Material Movement	—	—	—	—	—	7.66623	7.66623	—	3.93995	3.93995	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04180	0.38318	0.38739	0.00067	0.01605	—	0.01605	0.01477	—	0.01477	—	72.5729	72.5729	0.00294	0.00059	—	72.8219
Dust From Material Movement	—	—	—	—	—	0.10502	0.10502	—	0.05397	0.05397	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00763	0.06993	0.07070	0.00012	0.00293	—	0.00293	0.00269	—	0.00269	—	12.0153	12.0153	0.00049	0.00010	—	12.0565

Dust From Material Movement	—	—	—	—	—	0.01917	0.01917	—	0.00985	0.00985	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06016	0.05391	0.63000	0.00000	0.00000	0.14800	0.14800	0.00000	0.03469	0.03469	—	151.025	151.025	0.00809	0.00616	0.01341	153.077
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00082	0.00073	0.00874	0.00000	0.00000	0.00201	0.00201	0.00000	0.00047	0.00047	—	2.08735	2.08735	0.00011	0.00008	0.00307	2.11663
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00015	0.00013	0.00159	0.00000	0.00000	0.00037	0.00037	0.00000	0.00009	0.00009	—	0.34558	0.34558	0.00002	0.00001	0.00051	0.35043
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2027)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.58640	14.2321	17.2743	0.02733	0.59767	—	0.59767	0.54986	—	0.54986	—	2,960.07	2,960.07	0.12007	0.02401	—	2,970.23
Dust From Material Movement	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00931	0.08355	0.10141	0.00016	0.00351	—	0.00351	0.00323	—	0.00323	—	17.3781	17.3781	0.00070	0.00014	—	17.4378
Dust From Material Movement	—	—	—	—	—	0.01622	0.01622	—	0.00784	0.00784	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00170	0.01525	0.01851	0.00003	0.00064	—	0.00064	0.00059	—	0.00059	—	2.87715	2.87715	0.00012	0.00002	—	2.88702
Dust From Material Movement	—	—	—	—	—	0.00296	0.00296	—	0.00143	0.00143	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05157	0.04621	0.54000	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	129.450	129.450	0.00693	0.00528	0.01149	131.209
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00030	0.00027	0.00321	0.00000	0.00000	0.00074	0.00074	0.00000	0.00017	0.00017	—	0.76678	0.76678	0.00004	0.00003	0.00113	0.77754
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00005	0.00005	0.00059	0.00000	0.00000	0.00014	0.00014	0.00000	0.00003	0.00003	—	0.12695	0.12695	0.00001	< 0.000005	0.00019	0.12873
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Grading (2028)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.55941	13.7880	17.3209	0.02734	0.56820	—	0.56820	0.52275	—	0.52275	—	2,960.88	2,960.88	0.12011	0.02402	—	2,971.04
Dust From Material Movement	—	—	—	—	—	2.76221	2.76221	—	1.33565	1.33565	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02747	0.24284	0.30506	0.00048	0.01001	—	0.01001	0.00921	—	0.00921	—	52.1486	52.1486	0.00212	0.00042	—	52.3275
Dust From Material Movement	—	—	—	—	—	0.04865	0.04865	—	0.02352	0.02352	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00501	0.04432	0.05567	0.00009	0.00183	—	0.00183	0.00168	—	0.00168	—	8.63379	8.63379	0.00035	0.00007	—	8.66342
Dust From Material Movement	—	—	—	—	—	0.00888	0.00888	—	0.00429	0.00429	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05058	0.04192	0.50898	0.00000	0.00000	0.12686	0.12686	0.00000	0.02974	0.02974	—	127.154	127.154	0.00265	0.00495	0.01042	128.706
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00088	0.00073	0.00909	0.00000	0.00000	0.00222	0.00222	0.00000	0.00052	0.00052	—	2.25950	2.25950	0.00005	0.00009	0.00306	2.28970
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00016	0.00013	0.00166	0.00000	0.00000	0.00041	0.00041	0.00000	0.00009	0.00009	—	0.37409	0.37409	0.00001	0.00001	0.00051	0.37909
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Building Construction (2028)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.99143	8.92495	12.9352	0.02340	0.30024	—	0.30024	0.27622	—	0.27622	—	2,397.46	2,397.46	0.09725	0.01945	—	2,405.68
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62474	5.62394	8.15098	0.01475	0.18919	—	0.18919	0.17406	—	0.17406	—	1,510.73	1,510.73	0.06128	0.01226	—	1,515.91
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11401	1.02637	1.48755	0.00269	0.03453	—	0.03453	0.03177	—	0.03177	—	250.118	250.118	0.01015	0.00203	—	250.976
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12570	0.08988	1.42654	0.00000	0.00000	0.31123	0.31123	0.00000	0.07295	0.07295	—	330.284	330.284	0.00568	0.01215	0.98737	335.033
Vendor	0.01548	0.54277	0.25870	0.00317	0.00634	0.12063	0.12697	0.00634	0.03333	0.03967	—	441.779	441.779	0.01684	0.06356	0.90225	462.044
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12408	0.10284	1.24869	0.00000	0.00000	0.31123	0.31123	0.00000	0.07295	0.07295	—	311.951	311.951	0.00649	0.01215	0.02555	315.758
Vendor	0.01465	0.56376	0.26618	0.00317	0.00634	0.12063	0.12697	0.00634	0.03333	0.03967	—	442.101	442.101	0.01684	0.06356	0.02339	461.488

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07717	0.06429	0.79752	0.00000	0.00000	0.19488	0.19488	0.00000	0.04566	0.04566	—	198.327	198.327	0.00409	0.00765	0.26865	200.978
Vendor	0.00923	0.35237	0.16537	0.00200	0.00400	0.07561	0.07961	0.00400	0.02090	0.02490	—	278.468	278.468	0.01061	0.04005	0.24541	290.915
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01408	0.01173	0.14555	0.00000	0.00000	0.03557	0.03557	0.00000	0.00833	0.00833	—	32.8353	32.8353	0.00068	0.00127	0.04448	33.2743
Vendor	0.00168	0.06431	0.03018	0.00036	0.00073	0.01380	0.01453	0.00073	0.00381	0.00454	—	46.1035	46.1035	0.00176	0.00663	0.04063	48.1643
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Paving (2028)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62588	5.84990	8.80025	0.01296	0.21041	—	0.21041	0.19358	—	0.19358	—	1,350.28	1,350.28	0.05477	0.01095	—	1,354.92
Paving	0.05681	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03087	0.28849	0.43398	0.00064	0.01038	—	0.01038	0.00955	—	0.00955	—	66.5892	66.5892	0.00270	0.00054	—	66.8177
Paving	0.00280	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00563	0.05265	0.07920	0.00012	0.00189	—	0.00189	0.00174	—	0.00174	—	11.0246	11.0246	0.00045	0.00009	—	11.0624
Paving	0.00051	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06743	0.05589	0.67864	0.00000	0.00000	0.16915	0.16915	0.00000	0.03965	0.03965	—	169.538	169.538	0.00353	0.00660	0.01389	171.607
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00328	0.00273	0.03392	0.00000	0.00000	0.00829	0.00829	0.00000	0.00194	0.00194	—	8.43545	8.43545	0.00017	0.00033	0.01143	8.54823
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00060	0.00050	0.00619	0.00000	0.00000	0.00151	0.00151	0.00000	0.00035	0.00035	—	1.39659	1.39659	0.00003	0.00005	0.00189	1.41526
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7. Architectural Coating (2028)

3.7.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10731	0.80814	1.11833	0.00173	0.01536	—	0.01536	0.01413	—	0.01413	—	133.517	133.517	0.00542	0.00108	—	133.975
Architectural Coatings	29.8837	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00168	0.01265	0.01751	0.00003	0.00024	—	0.00024	0.00022	—	0.00022	—	2.09029	2.09029	0.00008	0.00002	—	2.09746
Architectural Coatings	0.46785	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00031	0.00231	0.00320	< 0.000005	0.00004	—	0.00004	0.00004	—	0.00004	—	0.34607	0.34607	0.00001	< 0.000005	—	0.34726
Architectural Coatings	0.08538	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.7.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02482	0.02057	0.24974	0.00000	0.00000	0.06225	0.06225	0.00000	0.01459	0.01459	—	62.3901	62.3901	0.00130	0.00243	0.00511	63.1515
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00038	0.00032	0.00396	0.00000	0.00000	0.00097	0.00097	0.00000	0.00023	0.00023	—	0.98547	0.98547	0.00002	0.00004	0.00133	0.99865
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00007	0.00006	0.00072	0.00000	0.00000	0.00018	0.00018	0.00000	0.00004	0.00004	—	0.16316	0.16316	< 0.000005	0.00001	0.00022	0.16534
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8. Architectural Coating (2029)

3.8.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.10236	0.79416	1.11216	0.00173	0.01284	—	0.01284	0.01181	—	0.01181	—	133.510	133.510	0.00542	0.00108	—	133.968
Architectural Coatings	29.8837	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00361	0.02797	0.03918	0.00006	0.00045	—	0.00045	0.00042	—	0.00042	—	4.70288	4.70288	0.00019	0.00004	—	4.71902
Architectural Coatings	1.05266	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00066	0.00511	0.00715	0.00001	0.00008	—	0.00008	0.00008	—	0.00008	—	0.77862	0.77862	0.00003	0.00001	—	0.78129
Architectural Coatings	0.19211	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.8.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02384	0.01830	0.23468	0.00000	0.00000	0.06225	0.06225	0.00000	0.01459	0.01459	—	61.3226	61.3226	0.00130	0.00243	0.00461	62.0836
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00083	0.00064	0.00839	0.00000	0.00000	0.00218	0.00218	0.00000	0.00051	0.00051	—	2.17932	2.17932	0.00004	0.00009	0.00270	2.20852
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00015	0.00012	0.00153	0.00000	0.00000	0.00040	0.00040	0.00000	0.00009	0.00009	—	0.36081	0.36081	0.00001	0.00001	0.00045	0.36565
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	11/22/2027	12/20/2027	5.00000	20.0000	—
Site Preparation	Site Preparation	12/21/2027	12/28/2027	5.00000	5.00000	—
Grading	Grading	12/29/2027	1/9/2028	5.00000	8.00000	—
Building Construction	Building Construction	1/10/2028	11/27/2028	5.00000	230.000	—
Paving	Paving	11/28/2028	12/23/2028	5.00000	18.0000	—
Architectural Coating	Architectural Coating	12/24/2028	1/18/2029	5.00000	18.0000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Excavators	Diesel	Average	3.00000	8.00000	36.0000	0.38000
Demolition	Rubber Tired Dozers	Diesel	Average	2.00000	8.00000	367.000	0.40000
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00000	8.00000	367.000	0.40000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00000	8.00000	84.0000	0.37000
Grading	Excavators	Diesel	Average	1.000000	8.00000	36.0000	0.38000
Grading	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	8.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	8.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	7.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	3.00000	8.00000	82.0000	0.20000
Building Construction	Generator Sets	Diesel	Average	1.000000	8.00000	14.0000	0.74000

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00000	7.00000	84.0000	0.37000
Building Construction	Welders	Diesel	Average	1.000000	8.00000	46.0000	0.45000
Paving	Cement and Mortar Mixers	Diesel	Average	2.00000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	8.00000	81.0000	0.42000
Paving	Paving Equipment	Diesel	Average	2.00000	6.00000	89.0000	0.36000
Paving	Rollers	Diesel	Average	2.00000	6.00000	36.0000	0.38000
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	15.0000	11.9700	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63000	HHDT,MHDT
Demolition	Hauling	60.9000	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	17.5000	11.9700	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	15.0000	11.9700	LDA,LDT1,LDT2
Grading	Vendor	—	7.63000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	36.8000	11.9700	LDA,LDT1,LDT2

Building Construction	Vendor	18.8485	7.63000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	20.0000	11.9700	LDA,LDT1,LDT2
Paving	Vendor	—	7.63000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	7.36000	11.9700	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	172,500	57,500.0	1,020.00

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	105,851	0.00000
Site Preparation	0.00000	0.00000	7.50000	0.00000	0.00000
Grading	0.00000	0.00000	8.00000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	0.39027

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	General Office Building	0.00000	0%
Paving	Other Asphalt Surfaces	0.39027	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	588.983	0.03300	0.00400
2028	0.00000	588.983	0.03300	0.00400
2029	0.00000	588.983	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2500	annual days of extreme heat
Extreme Precipitation	3.80000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.6600	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.4505
AQ-PM	42.3273
AQ-DPM	87.2433
Drinking Water	28.9871
Lead Risk Housing	35.2993
Pesticides	0.00000
Toxic Releases	23.5184
Traffic	90.6250
Effect Indicators	—
CleanUp Sites	69.0743
Groundwater	0.00000
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	23.8765
Solid Waste	59.1753
Sensitive Population	—
Asthma	33.5743

Cardio-vascular	31.2438
Low Birth Weights	80.3439
Socioeconomic Factor Indicators	—
Education	53.1258
Housing	79.9113
Linguistic	50.0068
Poverty	63.6432
Unemployment	23.7507

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.66084948
Employed	71.06377518
Median HI	43.00012832
Education	—
Bachelor's or higher	73.80982933
High school enrollment	100
Preschool enrollment	24.38085461
Transportation	—
Auto Access	39.77928911
Active commuting	79.36609778
Social	—
2-parent households	45.52803798
Voting	42.07622225
Neighborhood	—
Alcohol availability	87.46310792

Park access	81.35506224
Retail density	74.66957526
Supermarket access	37.61067625
Tree canopy	21.03169511
Housing	—
Homeownership	5.094315411
Housing habitability	28.16630309
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	62.18401129
Uncrowded housing	41.35762864
Health Outcomes	—
Insured adults	52.48299756
Arthritis	97.1
Asthma ER Admissions	66.4
High Blood Pressure	97.2
Cancer (excluding skin)	89.7
Asthma	88.8
Coronary Heart Disease	97.0
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	94.1
Life Expectancy at Birth	66.5
Cognitively Disabled	68.5
Physically Disabled	68.4
Heart Attack ER Admissions	67.1
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	91.3
Pedestrian Injuries	19.6

Physical Health Not Good	93.2
Stroke	95.7
Health Risk Behaviors	—
Binge Drinking	11.3
Current Smoker	65.4
No Leisure Time for Physical Activity	68.6
Climate Change Exposures	—
Wildfire Risk	2.0
SLR Inundation Area	0.0
Children	40.5
Elderly	96.3
English Speaking	37.2
Foreign-born	79.1
Outdoor Workers	92.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	29.3
Traffic Density	96.5
Traffic Access	23.0
Other Indices	—
Hardship	29.8
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Miramar ST2 - CDC Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Miramar ST2 - CDC
Construction Start Date	4/14/2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60000
Precipitation (days)	9.80000
Location	10440 Black Mountain Rd, San Diego, CA 92126, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6362
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Day-Care Center	18.5000	1000sqft	0.42470	18,500.0	0.00000	0.00000	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.2733	8.72102	9.87188	0.01583	0.39118	2.13509	2.52627	0.35989	1.01660	1.37649	—	1,783.11	1,783.11	0.07940	0.13603	1.86876	1,790.04
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	17.2731	0.83595	1.18134	0.00173	0.01905	0.01314	0.03219	0.01752	0.00308	0.02061	—	146.924	146.924	0.00613	0.00163	0.00119	147.564
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.40210	1.54445	2.32000	0.00408	0.05489	0.07343	0.12832	0.05042	0.01814	0.06856	—	471.024	471.024	0.01954	0.01044	0.07268	474.695
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07338	0.28186	0.42340	0.00074	0.01002	0.01340	0.02342	0.00920	0.00331	0.01251	—	77.9834	77.9834	0.00324	0.00173	0.01203	78.5912

2.2. Construction Emissions by Year

2.2.1. Total Construction Emissions by Year, Unmitigated

Includes both onsite and offsite emissions.

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	17.2733	8.72102	9.87188	0.01583	0.39118	2.13509	2.52627	0.35989	1.01660	1.37649	—	1,783.11	1,783.11	0.07940	0.13603	1.86876	1,790.04
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	17.2731	0.83595	1.18134	0.00173	0.01905	0.01314	0.03219	0.01752	0.00308	0.02061	—	146.924	146.924	0.00613	0.00163	0.00119	147.564
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.40210	1.54445	2.32000	0.00408	0.05489	0.07343	0.12832	0.05042	0.01814	0.06856	—	471.024	471.024	0.01954	0.01044	0.07268	474.695
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07338	0.28186	0.42340	0.00074	0.01002	0.01340	0.02342	0.00920	0.00331	0.01251	—	77.9834	77.9834	0.00324	0.00173	0.01203	78.5912

2.2.2. Onsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	17.2678	8.70254	9.56448	0.01583	0.39118	2.07166	2.46284	0.35989	1.00174	1.36162	—	1,714.58	1,714.58	0.06955	0.01391	0.00000	1,720.46
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	17.2678	0.83116	1.12539	0.00173	0.01905	0.00000	0.01905	0.01752	0.00000	0.01752	—	133.513	133.513	0.00542	0.00108	0.00000	133.971
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.39167	1.48153	2.19805	0.00379	0.05419	0.03943	0.09362	0.04986	0.00972	0.05957	—	405.546	405.546	0.01645	0.00329	0.00000	406.938
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.07148	0.27038	0.40114	0.00069	0.00989	0.00720	0.01709	0.00910	0.00177	0.01087	—	67.1428	67.1428	0.00272	0.00054	0.00000	67.3732

2.2.3. Offsite Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.06171	1.03787	0.80345	0.00537	0.01534	0.29964	0.31498	0.01023	0.07870	0.08893	—	887.986	887.986	0.04484	0.12912	1.86876	929.454
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00534	0.00479	0.05594	0.00000	0.00000	0.01314	0.01314	0.00000	0.00308	0.00308	—	13.4110	13.4110	0.00072	0.00055	0.00119	13.5932
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.01043	0.06292	0.12195	0.00029	0.00070	0.03400	0.03470	0.00056	0.00842	0.00898	—	65.4779	65.4779	0.00309	0.00715	0.07268	67.7573
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.00190	0.01148	0.02226	0.00005	0.00013	0.00620	0.00633	0.00010	0.00154	0.00164	—	10.8406	10.8406	0.00051	0.00118	0.01203	11.2180

3. Construction Emissions Details

3.1. Demolition (2027)

3.1.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42226	3.94364	5.55013	0.00877	0.11863	—	0.11863	0.10914	—	0.10914	—	851.847	851.847	0.03455	0.00691	—	854.771
Demolition	—	—	—	—	—	1.00408	1.00408	—	0.15205	0.15205	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01157	0.10804	0.15206	0.00024	0.00325	—	0.00325	0.00299	—	0.00299	—	23.3383	23.3383	0.00095	0.00019	—	23.4184
Demolition	—	—	—	—	—	0.02751	0.02751	—	0.00417	0.00417	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00211	0.01972	0.02775	0.00004	0.00059	—	0.00059	0.00055	—	0.00055	—	3.86392	3.86392	0.00016	0.00003	—	3.87718
Demolition	—	—	—	—	—	0.00502	0.00502	—	0.00076	0.00076	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.1.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03526	0.02465	0.40987	0.00000	0.00000	0.08457	0.08457	0.00000	0.01982	0.01982	—	91.3775	91.3775	0.00418	0.00330	0.29623	92.7618
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.01816	1.01323	0.39358	0.00537	0.01534	0.21506	0.23041	0.01023	0.05888	0.06911	—	796.608	796.608	0.04066	0.12582	1.57252	836.692
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00094	0.00084	0.00998	0.00000	0.00000	0.00230	0.00230	0.00000	0.00054	0.00054	—	2.38554	2.38554	0.00012	0.00009	0.00350	2.41900
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00048	0.02870	0.01083	0.00015	0.00042	0.00586	0.00628	0.00028	0.00161	0.00189	—	21.8287	21.8287	0.00111	0.00345	0.01864	22.9024
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00017	0.00015	0.00182	0.00000	0.00000	0.00042	0.00042	0.00000	0.00010	0.00010	—	0.39495	0.39495	0.00002	0.00001	0.00058	0.40049
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00009	0.00524	0.00198	0.00003	0.00008	0.00107	0.00115	0.00005	0.00029	0.00034	—	3.61399	3.61399	0.00018	0.00057	0.00309	3.79176

3.2. Site Preparation (2027)

3.2.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41320	3.43511	5.55625	0.00793	0.16579	—	0.16579	0.15253	—	0.15253	—	858.867	858.867	0.03484	0.00697	—	861.815
Dust From Material Movement	—	—	—	—	—	0.20680	0.20680	—	0.02233	0.02233	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00113	0.00941	0.01522	0.00002	0.00045	—	0.00045	0.00042	—	0.00042	—	2.35306	2.35306	0.00010	0.00002	—	2.36114

Dust From Material Movement	—	—	—	—	—	0.00057	0.00057	—	0.00006	0.00006	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00021	0.00172	0.00278	< 0.000005	0.00008	—	0.00008	0.00008	—	0.00008	—	0.38958	0.38958	0.00002	< 0.000005	—	0.39091
Dust From Material Movement	—	—	—	—	—	0.00010	0.00010	—	0.00001	0.00001	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.2.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01763	0.01232	0.20493	0.00000	0.00000	0.04229	0.04229	0.00000	0.00991	0.00991	—	45.6888	45.6888	0.00209	0.00165	0.14812	46.3809
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00005	0.00004	0.00050	0.00000	0.00000	0.00012	0.00012	0.00000	0.00003	0.00003	—	0.11928	0.11928	0.00001	< 0.000005	0.00018	0.12095
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00001	0.00001	0.00009	0.00000	0.00000	0.00002	0.00002	0.00000	< 0.000005	< 0.000005	—	0.01975	0.01975	< 0.000005	< 0.000005	0.00003	0.02002
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3. Grading (2027)

3.3.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.98785	8.70254	9.56448	0.01583	0.39118	—	0.39118	0.35989	—	0.35989	—	1,714.58	1,714.58	0.06955	0.01391	—	1,720.46
Dust From Material Movement	—	—	—	—	—	2.07166	2.07166	—	1.00174	1.00174	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00541	0.04769	0.05241	0.00009	0.00214	—	0.00214	0.00197	—	0.00197	—	9.39496	9.39496	0.00038	0.00008	—	9.42720
Dust From Material Movement	—	—	—	—	—	0.01135	0.01135	—	0.00549	0.00549	—	—	—	—	—	—	—

Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00099	0.00870	0.00956	0.00002	0.00039	—	0.00039	0.00036	—	0.00036	—	1.55544	1.55544	0.00006	0.00001	—	1.56078
Dust From Material Movement	—	—	—	—	—	0.00207	0.00207	—	0.00100	0.00100	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.3.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02645	0.01848	0.30740	0.00000	0.00000	0.06343	0.06343	0.00000	0.01487	0.01487	—	68.5331	68.5331	0.00314	0.00248	0.22218	69.5713
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00014	0.00013	0.00150	0.00000	0.00000	0.00035	0.00035	0.00000	0.00008	0.00008	—	0.35783	0.35783	0.00002	0.00001	0.00053	0.36285
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00003	0.00002	0.00027	0.00000	0.00000	0.00006	0.00006	0.00000	0.00001	0.00001	—	0.05924	0.05924	< 0.000005	< 0.000005	0.00009	0.06007
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4. Building Construction (2027)

3.4.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.47604	4.55564	6.89930	0.01205	0.16712	—	0.16712	0.15375	—	0.15375	—	1,304.35	1,304.35	0.05291	0.01058	—	1,308.83
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13042	1.24812	1.89022	0.00330	0.04579	—	0.04579	0.04212	—	0.04212	—	357.357	357.357	0.01450	0.00290	—	358.583
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02380	0.22778	0.34497	0.00060	0.00836	—	0.00836	0.00769	—	0.00769	—	59.1645	59.1645	0.00240	0.00048	—	59.3675
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.4.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02740	0.01915	0.31847	0.00000	0.00000	0.06571	0.06571	0.00000	0.01540	0.01540	—	71.0003	71.0003	0.00325	0.00256	0.23017	72.0759
Vendor	0.00256	0.09200	0.04341	0.00051	0.00102	0.01941	0.02043	0.00102	0.00536	0.00638	—	72.9002	72.9002	0.00278	0.01023	0.16265	76.1795
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00727	0.00651	0.07757	0.00000	0.00000	0.01789	0.01789	0.00000	0.00419	0.00419	—	18.5356	18.5356	0.00094	0.00070	0.02723	18.7957
Vendor	0.00066	0.02591	0.01206	0.00014	0.00028	0.00529	0.00557	0.00028	0.00146	0.00174	—	19.9782	19.9782	0.00078	0.00280	0.01926	20.8518
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00133	0.00119	0.01416	0.00000	0.00000	0.00326	0.00326	0.00000	0.00076	0.00076	—	3.06879	3.06879	0.00016	0.00012	0.00451	3.11184
Vendor	0.00012	0.00473	0.00220	0.00003	0.00005	0.00097	0.00102	0.00005	0.00027	0.00032	—	3.30763	3.30763	0.00013	0.00046	0.00319	3.45226
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5. Paving (2027)

3.5.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48071	4.15212	5.30895	0.00857	0.16795	—	0.16795	0.15451	—	0.15451	—	823.016	823.016	0.03339	0.00668	—	825.840
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00659	0.05688	0.07273	0.00012	0.00230	—	0.00230	0.00212	—	0.00212	—	11.2742	11.2742	0.00046	0.00009	—	11.3129
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00120	0.01038	0.01327	0.00002	0.00042	—	0.00042	0.00039	—	0.00039	—	1.86657	1.86657	0.00008	0.00002	—	1.87298
Paving	0.00000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.5.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06171	0.04313	0.71727	0.00000	0.00000	0.14800	0.14800	0.00000	0.03469	0.03469	—	159.911	159.911	0.00732	0.00578	0.51841	162.333
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00082	0.00073	0.00874	0.00000	0.00000	0.00201	0.00201	0.00000	0.00047	0.00047	—	2.08735	2.08735	0.00011	0.00008	0.00307	2.11663
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00015	0.00013	0.00159	0.00000	0.00000	0.00037	0.00037	0.00000	0.00009	0.00009	—	0.34558	0.34558	0.00002	0.00001	0.00051	0.35043
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6. Architectural Coating (2027)

3.6.1. Onsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	17.1544	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11335	0.83116	1.12539	0.00173	0.01905	—	0.01905	0.01752	—	0.01752	—	133.513	133.513	0.00542	0.00108	—	133.971
Architectural Coatings	17.1544	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.00155	0.01139	0.01542	0.00002	0.00026	—	0.00026	0.00024	—	0.00024	—	1.82894	1.82894	0.00007	0.00001	—	1.83522
Architectural Coatings	0.23499	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.00028	0.00208	0.00281	< 0.000005	0.00005	—	0.00005	0.00004	—	0.00004	—	0.30280	0.30280	0.00001	< 0.000005	—	0.30384
Architectural Coatings	0.04289	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

3.6.2. Offsite - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00548	0.00383	0.06369	0.00000	0.00000	0.01314	0.01314	0.00000	0.00308	0.00308	—	14.2001	14.2001	0.00065	0.00051	0.04603	14.4152
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00534	0.00479	0.05594	0.00000	0.00000	0.01314	0.01314	0.00000	0.00308	0.00308	—	13.4110	13.4110	0.00072	0.00055	0.00119	13.5932
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.00007	0.00007	0.00078	0.00000	0.00000	0.00018	0.00018	0.00000	0.00004	0.00004	—	0.18536	0.18536	0.00001	0.00001	0.00027	0.18796
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00001	0.00001	0.00014	0.00000	0.00000	0.00003	0.00003	0.00000	0.00001	0.00001	—	0.03069	0.03069	< 0.000005	< 0.000005	0.00005	0.03112
Vendor	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Hauling	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	4/14/2027	4/28/2027	5.00000	10.00000	—
Site Preparation	Site Preparation	4/29/2027	4/30/2027	5.00000	1.000000	—
Grading	Grading	5/1/2027	5/3/2027	5.00000	2.00000	—
Building Construction	Building Construction	5/4/2027	9/21/2027	5.00000	100.0000	—
Paving	Paving	9/22/2027	9/29/2027	5.00000	5.00000	—
Architectural Coating	Architectural Coating	9/30/2027	10/7/2027	5.00000	5.00000	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.000000	8.00000	33.0000	0.73000
Demolition	Rubber Tired Dozers	Diesel	Average	1.000000	1.000000	367.000	0.40000
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	6.00000	84.0000	0.37000
Site Preparation	Graders	Diesel	Average	1.000000	8.00000	148.000	0.41000
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	8.00000	84.0000	0.37000
Grading	Graders	Diesel	Average	1.000000	6.00000	148.000	0.41000
Grading	Rubber Tired Dozers	Diesel	Average	1.000000	6.00000	367.000	0.40000
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	7.00000	84.0000	0.37000
Building Construction	Cranes	Diesel	Average	1.000000	4.00000	367.000	0.29000
Building Construction	Forklifts	Diesel	Average	2.00000	6.00000	82.0000	0.20000
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00000	8.00000	84.0000	0.37000
Paving	Cement and Mortar Mixers	Diesel	Average	4.00000	6.00000	10.00000	0.56000
Paving	Pavers	Diesel	Average	1.000000	7.00000	81.0000	0.42000
Paving	Rollers	Diesel	Average	1.000000	7.00000	36.0000	0.38000
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.000000	7.00000	84.0000	0.37000
Architectural Coating	Air Compressors	Diesel	Average	1.000000	6.00000	37.0000	0.48000

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	10.00000	11.9700	LDA,LDT1,LDT2
Demolition	Vendor	—	7.63000	HHDT,MHDT
Demolition	Hauling	11.6000	20.0000	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	5.00000	11.9700	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63000	HHDT,MHDT
Site Preparation	Hauling	0.00000	20.0000	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	7.50000	11.9700	LDA,LDT1,LDT2
Grading	Vendor	—	7.63000	HHDT,MHDT
Grading	Hauling	0.00000	20.0000	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	7.77000	11.9700	LDA,LDT1,LDT2
Building Construction	Vendor	3.03215	7.63000	HHDT,MHDT
Building Construction	Hauling	0.00000	20.0000	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	Worker	17.5000	11.9700	LDA,LDT1,LDT2
Paving	Vendor	—	7.63000	HHDT,MHDT
Paving	Hauling	0.00000	20.0000	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	1.55400	11.9700	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63000	HHDT,MHDT
Architectural Coating	Hauling	0.00000	20.0000	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00000	0.00000	27,750.0	9,250.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00000	0.00000	0.00000	10,076.0	0.00000
Site Preparation	0.00000	0.00000	0.50000	0.00000	0.00000
Grading	0.00000	0.00000	1.50000	0.00000	0.00000
Paving	0.00000	0.00000	0.00000	0.00000	0.00000

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Day-Care Center	0.00000	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00000	588.983	0.03300	0.00400

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2500	annual days of extreme heat
Extreme Precipitation	3.80000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.6600	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.4505
AQ-PM	42.3273
AQ-DPM	87.2433
Drinking Water	28.9871

Lead Risk Housing	35.2993
Pesticides	0.00000
Toxic Releases	23.5184
Traffic	90.6250
Effect Indicators	—
CleanUp Sites	69.0743
Groundwater	0.00000
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	23.8765
Solid Waste	59.1753
Sensitive Population	—
Asthma	33.5743
Cardio-vascular	31.2438
Low Birth Weights	80.3439
Socioeconomic Factor Indicators	—
Education	53.1258
Housing	79.9113
Linguistic	50.0068
Poverty	63.6432
Unemployment	23.7507

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.66084948
Employed	71.06377518
Median HI	43.00012832

Education	—
Bachelor's or higher	73.80982933
High school enrollment	100
Preschool enrollment	24.38085461
Transportation	—
Auto Access	39.77928911
Active commuting	79.36609778
Social	—
2-parent households	45.52803798
Voting	42.07622225
Neighborhood	—
Alcohol availability	87.46310792
Park access	81.35506224
Retail density	74.66957526
Supermarket access	37.61067625
Tree canopy	21.03169511
Housing	—
Homeownership	5.094315411
Housing habitability	28.16630309
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	62.18401129
Uncrowded housing	41.35762864
Health Outcomes	—
Insured adults	52.48299756
Arthritis	97.1
Asthma ER Admissions	66.4
High Blood Pressure	97.2
Cancer (excluding skin)	89.7

Asthma	88.8
Coronary Heart Disease	97.0
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	94.1
Life Expectancy at Birth	66.5
Cognitively Disabled	68.5
Physically Disabled	68.4
Heart Attack ER Admissions	67.1
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	91.3
Pedestrian Injuries	19.6
Physical Health Not Good	93.2
Stroke	95.7
Health Risk Behaviors	—
Binge Drinking	11.3
Current Smoker	65.4
No Leisure Time for Physical Activity	68.6
Climate Change Exposures	—
Wildfire Risk	2.0
SLR Inundation Area	0.0
Children	40.5
Elderly	96.3
English Speaking	37.2
Foreign-born	79.1
Outdoor Workers	92.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	29.3

Traffic Density	96.5
Traffic Access	23.0
Other Indices	—
Hardship	29.8
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Miramar Buildout Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Miramar Buildout
Operational Year	2029
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60000
Precipitation (days)	9.80000
Location	10440 Black Mountain Rd, San Diego, CA 92126, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6362
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	115.000	1000sqft	2.64004	115,000	0.00000	0.00000	—	English/Performing Arts

Other Asphalt Surfaces	17.0000	1000sqft	0.39027	0.00000	0.00000	0.00000	—	Misc. Hardscape
Manufacturing	30.0000	1000sqft	0.68871	30,000.0	0.00000	0.00000	—	C-1 Bldg
General Office Building	45.0000	1000sqft	1.03306	45,000.0	0.00000	0.00000	—	Welcome Center
Enclosed Parking with Elevator	300.000	Space	2.70000	120,000	0.00000	0.00000	—	—
Health Club	25.0000	1000sqft	0.57392	25,000.0	0.00000	0.00000	—	Athletics
Research & Development	20.0000	1000sqft	0.45914	20,000.0	0.00000	0.00000	—	STEM Lab
Parking Lot	20.0000	Space	0.18000	0.00000	0.00000	0.00000	—	—
Day-Care Center	18.5000	1000sqft	0.42470	18,500.0	0.00000	0.00000	—	CDC
City Park	2.00000	Acre	2.00000	0.00000	0.00000	0.00000	—	Fields on parking roof

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Energy	E-7*	Require Higher Efficacy Public Street and Area Lighting
Energy	E-15	Require All-Electric Development

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	42.1846	24.8214	268.897	0.65947	0.64401	59.5788	60.2228	0.60780	15.1108	15.7186	281.899	68,985.6	69,267.5	31.9120	2.70086	170.903	71,041.0

Mit.	42.0623	22.5986	267.030	0.64614	0.47508	59.5788	60.0539	0.43887	15.1108	15.5496	281.899	66,333.4	66,615.3	31.6773	2.69587	170.903	68,381.5
% Reduced	< 0.5%	9%	1%	2%	26%	—	< 0.5%	28%	—	1%	—	4%	4%	1%	< 0.5%	—	4%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	38.9374	26.8811	237.518	0.62966	0.61535	59.5788	60.1942	0.58617	15.1108	15.6969	281.899	66,001.4	66,283.3	32.0745	2.84287	13.1012	67,945.4
Mit.	38.8152	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	281.899	63,349.2	63,631.1	31.8398	2.83788	13.1012	65,285.9
% Reduced	< 0.5%	8%	1%	2%	27%	—	< 0.5%	29%	—	1%	—	4%	4%	1%	< 0.5%	—	4%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	39.8295	26.6190	245.512	0.63450	0.62947	59.2037	59.8332	0.59682	15.0170	15.6138	281.899	66,475.3	66,757.2	32.0271	2.81716	78.8521	68,476.2
Mit.	39.7073	24.3962	243.645	0.62116	0.46053	59.2037	59.6642	0.42789	15.0170	15.4449	281.899	63,823.1	64,105.0	31.7924	2.81217	78.8521	65,816.7
% Reduced	< 0.5%	8%	1%	2%	27%	—	< 0.5%	28%	—	1%	—	4%	4%	1%	< 0.5%	—	4%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.26889	4.85797	44.8059	0.11580	0.11488	10.8047	10.9196	0.10892	2.74060	2.84952	46.6716	11,005.7	11,052.4	5.30245	0.46641	13.0549	11,337.0
Mit.	7.24658	4.45230	44.4651	0.11336	0.08405	10.8047	10.8887	0.07809	2.74060	2.81869	46.6716	10,566.6	10,613.3	5.26359	0.46559	13.0549	10,896.7
% Reduced	< 0.5%	8%	1%	2%	27%	—	< 0.5%	28%	—	1%	—	4%	4%	1%	< 0.5%	—	4%

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1
Area	8.44155	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401

Energy	0.12225	2.22282	1.86716	0.01334	0.16893	—	0.16893	0.16893	—	0.16893	—	3,153.25	3,153.25	0.60135	0.04943	—	3,183.01
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	42.1846	24.8214	268.897	0.65947	0.64401	59.5788	60.2228	0.60780	15.1108	15.7186	281.899	68,985.6	69,267.5	31.9120	2.70086	170.903	71,041.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Area	5.77270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.12225	2.22282	1.86716	0.01334	0.16893	—	0.16893	0.16893	—	0.16893	—	3,153.25	3,153.25	0.60135	0.04943	—	3,183.01
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	38.9374	26.8811	237.518	0.62966	0.61535	59.5788	60.1942	0.58617	15.1108	15.6969	281.899	66,001.4	66,283.3	32.0745	2.84287	13.1012	67,945.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.6184	24.3288	235.634	0.62069	0.44630	59.2037	59.6500	0.41713	15.0170	15.4341	—	63,249.2	63,249.2	2.98449	2.54224	69.9513	64,151.3
Area	7.08884	0.06740	8.01093	0.00048	0.01423	—	0.01423	0.01076	—	0.01076	—	32.9421	32.9421	0.00138	0.00028	—	33.0609
Energy	0.12225	2.22282	1.86716	0.01334	0.16893	—	0.16893	0.16893	—	0.16893	—	3,153.25	3,153.25	0.60135	0.04943	—	3,183.01
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	39.8295	26.6190	245.512	0.63450	0.62947	59.2037	59.8332	0.59682	15.0170	15.6138	281.899	66,475.3	66,757.2	32.0271	2.81716	78.8521	68,476.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0
Area	1.29371	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360
Energy	0.02231	0.40566	0.34076	0.00243	0.03083	—	0.03083	0.03083	—	0.03083	—	522.056	522.056	0.09956	0.00818	—	526.984
Water	—	—	—	—	—	—	—	—	—	—	15.0635	6.61192	21.6754	1.54943	0.03729	—	71.5222

Waste	—	—	—	—	—	—	—	—	—	—	31.6081	0.00000	31.6081	3.15912	0.00000	—	110.586
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47362	1.47362
Total	7.26889	4.85797	44.8059	0.11580	0.11488	10.8047	10.9196	0.10892	2.74060	2.84952	46.6716	11,005.7	11,052.4	5.30245	0.46641	13.0549	11,337.0

2.5. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1
Area	8.44155	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	501.056	501.056	0.36663	0.04444	—	523.465
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	42.0623	22.5986	267.030	0.64614	0.47508	59.5788	60.0539	0.43887	15.1108	15.5496	281.899	66,333.4	66,615.3	31.6773	2.69587	170.903	68,381.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Area	5.77270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	501.056	501.056	0.36663	0.04444	—	523.465
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	38.8152	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	281.899	63,349.2	63,631.1	31.8398	2.83788	13.1012	65,285.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.6184	24.3288	235.634	0.62069	0.44630	59.2037	59.6500	0.41713	15.0170	15.4341	—	63,249.2	63,249.2	2.98449	2.54224	69.9513	64,151.3

Area	7.08884	0.06740	8.01093	0.00048	0.01423	—	0.01423	0.01076	—	0.01076	—	32.9421	32.9421	0.00138	0.00028	—	33.0609
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	501.056	501.056	0.36663	0.04444	—	523.465
Water	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Waste	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Total	39.7073	24.3962	243.645	0.62116	0.46053	59.2037	59.6642	0.42789	15.0170	15.4449	281.899	63,823.1	64,105.0	31.7924	2.81217	78.8521	65,816.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0
Area	1.29371	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360
Energy	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	82.9556	82.9556	0.06070	0.00736	—	86.6656
Water	—	—	—	—	—	—	—	—	—	—	15.0635	6.61192	21.6754	1.54943	0.03729	—	71.5222
Waste	—	—	—	—	—	—	—	—	—	—	31.6081	0.00000	31.6081	3.15912	0.00000	—	110.586
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47362	1.47362
Total	7.24658	4.45230	44.4651	0.11336	0.08405	10.8047	10.8887	0.07809	2.74060	2.81869	46.6716	10,566.6	10,613.3	5.26359	0.46559	13.0549	10,896.7

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1

Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	33.6208	22.4619	250.786	0.64517	0.44622	59.5788	60.0251	0.41705	15.1108	15.5278	—	65,725.6	65,725.6	2.86798	2.42565	162.002	66,682.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	33.0425	24.6583	235.651	0.61633	0.44641	59.5788	60.0252	0.41723	15.1108	15.5280	—	62,808.2	62,808.2	3.03328	2.56823	4.20045	63,653.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	5.95286	4.44000	43.0032	0.11328	0.08145	10.8047	10.8861	0.07613	2.74060	2.81672	—	10,471.6	10,471.6	0.49412	0.42090	11.5812	10,621.0

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	328.065	328.065	0.24005	0.02910	—	342.737
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	33.2624	33.2624	0.02434	0.00295	—	34.7500

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	54.7331	54.7331	0.04005	0.00485	—	57.1810
Health Club	—	—	—	—	—	—	—	—	—	—	—	27.7186	27.7186	0.02028	0.00246	—	28.9583
Research & Development	—	—	—	—	—	—	—	—	—	—	—	41.0081	41.0081	0.03001	0.00364	—	42.8422
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.84867	0.84867	0.00062	0.00008	—	0.88663
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	15.4201	15.4201	0.01128	0.00137	—	16.1098
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	501.056	501.056	0.36663	0.04444	—	523.465
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	328.065	328.065	0.24005	0.02910	—	342.737
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	33.2624	33.2624	0.02434	0.00295	—	34.7500
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	54.7331	54.7331	0.04005	0.00485	—	57.1810
Health Club	—	—	—	—	—	—	—	—	—	—	—	27.7186	27.7186	0.02028	0.00246	—	28.9583

Research & Development	—	—	—	—	—	—	—	—	—	—	—	41.0081	41.0081	0.03001	0.00364	—	42.8422
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.84867	0.84867	0.00062	0.00008	—	0.88663
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	15.4201	15.4201	0.01128	0.00137	—	16.1098
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	501.056	501.056	0.36663	0.04444	—	523.465
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	54.3149	54.3149	0.03974	0.00482	—	56.7441
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	5.50697	5.50697	0.00403	0.00049	—	5.75326
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	9.06169	9.06169	0.00663	0.00080	—	9.46696
Health Club	—	—	—	—	—	—	—	—	—	—	—	4.58914	4.58914	0.00336	0.00041	—	4.79438
Research & Development	—	—	—	—	—	—	—	—	—	—	—	6.78936	6.78936	0.00497	0.00060	—	7.09301
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.14051	0.14051	0.00010	0.00001	—	0.14679
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	2.55298	2.55298	0.00187	0.00023	—	2.66716
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	—	—	—	—	—	—	—	—	—	—	—	82.9556	82.9556	0.06070	0.00736	—	86.6656

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	328.065	328.065	0.24005	0.02910	—	342.737
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	33.2624	33.2624	0.02434	0.00295	—	34.7500
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	54.7331	54.7331	0.04005	0.00485	—	57.1810
Health Club	—	—	—	—	—	—	—	—	—	—	—	27.7186	27.7186	0.02028	0.00246	—	28.9583
Research & Development	—	—	—	—	—	—	—	—	—	—	—	41.0081	41.0081	0.03001	0.00364	—	42.8422
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.84867	0.84867	0.00062	0.00008	—	0.88663
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	15.4201	15.4201	0.01128	0.00137	—	16.1098
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	501.056	501.056	0.36663	0.04444	—	523.465

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	328.065	328.065	0.24005	0.02910	—	342.737
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	33.2624	33.2624	0.02434	0.00295	—	34.7500
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	54.7331	54.7331	0.04005	0.00485	—	57.1810
Health Club	—	—	—	—	—	—	—	—	—	—	—	27.7186	27.7186	0.02028	0.00246	—	28.9583
Research & Development	—	—	—	—	—	—	—	—	—	—	—	41.0081	41.0081	0.03001	0.00364	—	42.8422
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.84867	0.84867	0.00062	0.00008	—	0.88663
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	15.4201	15.4201	0.01128	0.00137	—	16.1098
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	501.056	501.056	0.36663	0.04444	—	523.465
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	54.3149	54.3149	0.03974	0.00482	—	56.7441
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	5.50697	5.50697	0.00403	0.00049	—	5.75326

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	9.06169	9.06169	0.00663	0.00080	—	9.46696
Health Club	—	—	—	—	—	—	—	—	—	—	—	4.58914	4.58914	0.00336	0.00041	—	4.79438
Research & Development	—	—	—	—	—	—	—	—	—	—	—	6.78936	6.78936	0.00497	0.00060	—	7.09301
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.14051	0.14051	0.00010	0.00001	—	0.14679
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	2.55298	2.55298	0.00187	0.00023	—	2.66716
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	82.9556	82.9556	0.06070	0.00736	—	86.6656

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.07569	1.37622	1.15603	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,642.07	1,642.07	0.14532	0.00309	—	1,646.62
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.01789	0.32526	0.27321	0.00195	0.02472	—	0.02472	0.02472	—	0.02472	—	388.085	388.085	0.03435	0.00073	—	389.161

Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.01491	0.27105	0.22768	0.00163	0.02060	—	0.02060	0.02060	—	0.02060	—	323.404	323.404	0.02862	0.00061	—	324.301
Research & Development	0.00946	0.17203	0.14450	0.00103	0.01307	—	0.01307	0.01307	—	0.01307	—	205.258	205.258	0.01817	0.00039	—	205.827
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00430	0.07826	0.06574	0.00047	0.00595	—	0.00595	0.00595	—	0.00595	—	93.3773	93.3773	0.00826	0.00018	—	93.6363
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.12225	2.22282	1.86716	0.01334	0.16893	—	0.16893	0.16893	—	0.16893	—	2,652.19	2,652.19	0.23472	0.00499	—	2,659.55
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.07569	1.37622	1.15603	0.00826	0.10459	—	0.10459	0.10459	—	0.10459	—	1,642.07	1,642.07	0.14532	0.00309	—	1,646.62
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.01789	0.32526	0.27321	0.00195	0.02472	—	0.02472	0.02472	—	0.02472	—	388.085	388.085	0.03435	0.00073	—	389.161
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.01491	0.27105	0.22768	0.00163	0.02060	—	0.02060	0.02060	—	0.02060	—	323.404	323.404	0.02862	0.00061	—	324.301

Research & Development	0.00946	0.17203	0.14450	0.00103	0.01307	—	0.01307	0.01307	—	0.01307	—	205.258	205.258	0.01817	0.00039	—	205.827
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00430	0.07826	0.06574	0.00047	0.00595	—	0.00595	0.00595	—	0.00595	—	93.3773	93.3773	0.00826	0.00018	—	93.6363
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.12225	2.22282	1.86716	0.01334	0.16893	—	0.16893	0.16893	—	0.16893	—	2,652.19	2,652.19	0.23472	0.00499	—	2,659.55
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.01381	0.25116	0.21098	0.00151	0.01909	—	0.01909	0.01909	—	0.01909	—	271.863	271.863	0.02406	0.00051	—	272.617
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.00326	0.05936	0.04986	0.00036	0.00451	—	0.00451	0.00451	—	0.00451	—	64.2518	64.2518	0.00569	0.00012	—	64.4300
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.00272	0.04947	0.04155	0.00030	0.00376	—	0.00376	0.00376	—	0.00376	—	53.5432	53.5432	0.00474	0.00010	—	53.6917
Research & Development	0.00173	0.03140	0.02637	0.00019	0.00239	—	0.00239	0.00239	—	0.00239	—	33.9828	33.9828	0.00301	0.00006	—	34.0771
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00079	0.01428	0.01200	0.00009	0.00109	—	0.00109	0.00109	—	0.00109	—	15.4597	15.4597	0.00137	0.00003	—	15.5026
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	0.02231	0.40566	0.34076	0.00243	0.03083	—	0.03083	0.03083	—	0.03083	—	439.100	439.100	0.03886	0.00083	—	440.318

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.43610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33659	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipment	2.66885	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401
Total	8.44155	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.43610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33659	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.77270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.99209	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06143	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.24020	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360
Total	1.29371	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	5.43610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33659	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.66885	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401
Total	8.44155	0.13668	16.2444	0.00097	0.02885	—	0.02885	0.02181	—	0.02181	—	66.7992	66.7992	0.00280	0.00057	—	67.0401
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.43610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.33659	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	5.77270	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.99209	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.06143	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.24020	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360
Total	1.29371	0.01230	1.46199	0.00009	0.00260	—	0.00260	0.00196	—	0.00196	—	5.45394	5.45394	0.00023	0.00005	—	5.47360

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	54.4928	23.9189	78.4116	5.60511	0.13488	—	258.734
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	13.2939	5.83517	19.1291	1.36741	0.03291	—	63.1199
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	2.83330	1.24364	4.07695	0.29143	0.00701	—	13.4527
Research & Development	—	—	—	—	—	—	—	—	—	—	18.8440	8.27133	27.1154	1.93829	0.04664	—	89.4723
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	1.52045	0.66738	2.18783	0.15639	0.00376	—	7.21917
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	54.4928	23.9189	78.4116	5.60511	0.13488	—	258.734
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	13.2939	5.83517	19.1291	1.36741	0.03291	—	63.1199
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	2.83330	1.24364	4.07695	0.29143	0.00701	—	13.4527
Research & Development	—	—	—	—	—	—	—	—	—	—	18.8440	8.27133	27.1154	1.93829	0.04664	—	89.4723
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	1.52045	0.66738	2.18783	0.15639	0.00376	—	7.21917
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	9.02190	3.96004	12.9819	0.92799	0.02233	—	42.8364
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	2.20095	0.96608	3.16703	0.22639	0.00545	—	10.4502

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	0.46909	0.20590	0.67498	0.04825	0.00116	—	2.22724
Research & Development	—	—	—	—	—	—	—	—	—	—	3.11984	1.36941	4.48926	0.32091	0.00772	—	14.8132
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.25173	0.11049	0.36222	0.02589	0.00062	—	1.19522
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	15.0635	6.61192	21.6754	1.54943	0.03729	—	71.5222

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	54.4928	23.9189	78.4116	5.60511	0.13488	—	258.734
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	13.2939	5.83517	19.1291	1.36741	0.03291	—	63.1199

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	2.83330	1.24364	4.07695	0.29143	0.00701	—	13.4527
Research & Development	—	—	—	—	—	—	—	—	—	—	18.8440	8.27133	27.1154	1.93829	0.04664	—	89.4723
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	1.52045	0.66738	2.18783	0.15639	0.00376	—	7.21917
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	54.4928	23.9189	78.4116	5.60511	0.13488	—	258.734
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	13.2939	5.83517	19.1291	1.36741	0.03291	—	63.1199
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	2.83330	1.24364	4.07695	0.29143	0.00701	—	13.4527

Research & Development	—	—	—	—	—	—	—	—	—	—	18.8440	8.27133	27.1154	1.93829	0.04664	—	89.4723
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	1.52045	0.66738	2.18783	0.15639	0.00376	—	7.21917
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	90.9844	39.9364	130.921	9.35863	0.22521	—	431.998
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	9.02190	3.96004	12.9819	0.92799	0.02233	—	42.8364
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	2.20095	0.96608	3.16703	0.22639	0.00545	—	10.4502
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	0.46909	0.20590	0.67498	0.04825	0.00116	—	2.22724
Research & Development	—	—	—	—	—	—	—	—	—	—	3.11984	1.36941	4.48926	0.32091	0.00772	—	14.8132
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.25173	0.11049	0.36222	0.02589	0.00062	—	1.19522
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	—	—	—	—	—	—	—	—	—	—	15.0635	6.61192	21.6754	1.54943	0.03729	—	71.5222

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	80.1941	0.00000	80.1941	8.01511	0.00000	—	280.572
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	20.0485	0.00000	20.0485	2.00378	0.00000	—	70.1430
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	76.7988	0.00000	76.7988	7.67576	0.00000	—	268.693
Research & Development	—	—	—	—	—	—	—	—	—	—	0.81911	0.00000	0.81911	0.08187	0.00000	—	2.86579
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	12.9615	0.00000	12.9615	1.29545	0.00000	—	45.3478
City Park	—	—	—	—	—	—	—	—	—	—	0.09270	0.00000	0.09270	0.00926	0.00000	—	0.32432

Total	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	80.1941	0.00000	80.1941	8.01511	0.00000	—	280.572
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	20.0485	0.00000	20.0485	2.00378	0.00000	—	70.1430
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	76.7988	0.00000	76.7988	7.67576	0.00000	—	268.693
Research & Development	—	—	—	—	—	—	—	—	—	—	0.81911	0.00000	0.81911	0.08187	0.00000	—	2.86579
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	12.9615	0.00000	12.9615	1.29545	0.00000	—	45.3478
City Park	—	—	—	—	—	—	—	—	—	—	0.09270	0.00000	0.09270	0.00926	0.00000	—	0.32432
Total	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	13.2770	0.00000	13.2770	1.32699	0.00000	—	46.4519
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000

Manufact	—	—	—	—	—	—	—	—	—	—	3.31926	0.00000	3.31926	0.33175	0.00000	—	11.6130
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	12.7149	0.00000	12.7149	1.27081	0.00000	—	44.4852
Research & Development	—	—	—	—	—	—	—	—	—	—	0.13561	0.00000	0.13561	0.01355	0.00000	—	0.47446
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	2.14592	0.00000	2.14592	0.21448	0.00000	—	7.50785
City Park	—	—	—	—	—	—	—	—	—	—	0.01535	0.00000	0.01535	0.00153	0.00000	—	0.05369
Total	—	—	—	—	—	—	—	—	—	—	31.6081	0.00000	31.6081	3.15912	0.00000	—	110.586

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	80.1941	0.00000	80.1941	8.01511	0.00000	—	280.572
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	20.0485	0.00000	20.0485	2.00378	0.00000	—	70.1430

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	76.7988	0.00000	76.7988	7.67576	0.00000	—	268.693
Research & Development	—	—	—	—	—	—	—	—	—	—	0.81911	0.00000	0.81911	0.08187	0.00000	—	2.86579
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	12.9615	0.00000	12.9615	1.29545	0.00000	—	45.3478
City Park	—	—	—	—	—	—	—	—	—	—	0.09270	0.00000	0.09270	0.00926	0.00000	—	0.32432
Total	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	80.1941	0.00000	80.1941	8.01511	0.00000	—	280.572
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	20.0485	0.00000	20.0485	2.00378	0.00000	—	70.1430
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	76.7988	0.00000	76.7988	7.67576	0.00000	—	268.693

Research & Development	—	—	—	—	—	—	—	—	—	—	0.81911	0.00000	0.81911	0.08187	0.00000	—	2.86579
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	12.9615	0.00000	12.9615	1.29545	0.00000	—	45.3478
City Park	—	—	—	—	—	—	—	—	—	—	0.09270	0.00000	0.09270	0.00926	0.00000	—	0.32432
Total	—	—	—	—	—	—	—	—	—	—	190.915	0.00000	190.915	19.0812	0.00000	—	667.946
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	13.2770	0.00000	13.2770	1.32699	0.00000	—	46.4519
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Manufacturing	—	—	—	—	—	—	—	—	—	—	3.31926	0.00000	3.31926	0.33175	0.00000	—	11.6130
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Health Club	—	—	—	—	—	—	—	—	—	—	12.7149	0.00000	12.7149	1.27081	0.00000	—	44.4852
Research & Development	—	—	—	—	—	—	—	—	—	—	0.13561	0.00000	0.13561	0.01355	0.00000	—	0.47446
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	2.14592	0.00000	2.14592	0.21448	0.00000	—	7.50785
City Park	—	—	—	—	—	—	—	—	—	—	0.01535	0.00000	0.01535	0.00153	0.00000	—	0.05369

Total	—	—	—	—	—	—	—	—	—	—	31.6081	0.00000	31.6081	3.15912	0.00000	—	110.586

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38912	0.38912
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.80913	7.80913
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12002	0.12002
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51104	0.51104
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07146	0.07146
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38912	0.38912
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.80913	7.80913

Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12002	0.12002
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51104	0.51104
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07146	0.07146
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06442	0.06442
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29289	1.29289
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01987	0.01987
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08461	0.08461
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01183	0.01183
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47362	1.47362

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38912	0.38912
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.80913	7.80913
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12002	0.12002
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51104	0.51104
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07146	0.07146
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.38912	0.38912
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.80913	7.80913
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.12002	0.12002
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.51104	0.51104
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07146	0.07146
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.90077	8.90077
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06442	0.06442
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.29289	1.29289
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01987	0.01987
Research & Development	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08461	0.08461
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01183	0.01183
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.47362	1.47362

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	9,449.55	9,449.55	9,449.55	3,449,086	84,365.9	84,365.9	84,365.9	30,793,561
Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Office Building	9,449.55	9,449.55	9,449.55	3,449,086	84,365.9	84,365.9	84,365.9	30,793,561

Other Asphalt Surfaces	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Enclosed Parking with Elevator	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Health Club	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Research & Development	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
General Office Building	Wood Fireplaces	0	0
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0
General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0
Other Asphalt Surfaces	Wood Fireplaces	0	0
Other Asphalt Surfaces	Gas Fireplaces	0	0
Other Asphalt Surfaces	Propane Fireplaces	0	0

Other Asphalt Surfaces	Electric Fireplaces	0	0
Other Asphalt Surfaces	No Fireplaces	0	0
Other Asphalt Surfaces	Conventional Wood Stoves	0	0
Other Asphalt Surfaces	Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Non-Catalytic Wood Stoves	0	0
Other Asphalt Surfaces	Pellet Wood Stoves	0	0
Manufacturing	Wood Fireplaces	0	0
Manufacturing	Gas Fireplaces	0	0
Manufacturing	Propane Fireplaces	0	0
Manufacturing	Electric Fireplaces	0	0
Manufacturing	No Fireplaces	0	0
Manufacturing	Conventional Wood Stoves	0	0
Manufacturing	Catalytic Wood Stoves	0	0
Manufacturing	Non-Catalytic Wood Stoves	0	0
Manufacturing	Pellet Wood Stoves	0	0
General Office Building	Wood Fireplaces	0	0
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0
General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0
Enclosed Parking with Elevator	Wood Fireplaces	0	0
Enclosed Parking with Elevator	Gas Fireplaces	0	0
Enclosed Parking with Elevator	Propane Fireplaces	0	0
Enclosed Parking with Elevator	Electric Fireplaces	0	0

Enclosed Parking with Elevator	No Fireplaces	0	0
Enclosed Parking with Elevator	Conventional Wood Stoves	0	0
Enclosed Parking with Elevator	Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Non-Catalytic Wood Stoves	0	0
Enclosed Parking with Elevator	Pellet Wood Stoves	0	0
Health Club	Wood Fireplaces	0	0
Health Club	Gas Fireplaces	0	0
Health Club	Propane Fireplaces	0	0
Health Club	Electric Fireplaces	0	0
Health Club	No Fireplaces	0	0
Health Club	Conventional Wood Stoves	0	0
Health Club	Catalytic Wood Stoves	0	0
Health Club	Non-Catalytic Wood Stoves	0	0
Health Club	Pellet Wood Stoves	0	0
Research & Development	Wood Fireplaces	0	0
Research & Development	Gas Fireplaces	0	0
Research & Development	Propane Fireplaces	0	0
Research & Development	Electric Fireplaces	0	0
Research & Development	No Fireplaces	0	0
Research & Development	Conventional Wood Stoves	0	0
Research & Development	Catalytic Wood Stoves	0	0
Research & Development	Non-Catalytic Wood Stoves	0	0
Research & Development	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0

Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0
Day-Care Center	Wood Fireplaces	0	0
Day-Care Center	Gas Fireplaces	0	0
Day-Care Center	Propane Fireplaces	0	0
Day-Care Center	Electric Fireplaces	0	0
Day-Care Center	No Fireplaces	0	0
Day-Care Center	Conventional Wood Stoves	0	0
Day-Care Center	Catalytic Wood Stoves	0	0
Day-Care Center	Non-Catalytic Wood Stoves	0	0
Day-Care Center	Pellet Wood Stoves	0	0
City Park	Wood Fireplaces	0	0
City Park	Gas Fireplaces	0	0
City Park	Propane Fireplaces	0	0
City Park	Electric Fireplaces	0	0
City Park	No Fireplaces	0	0
City Park	Conventional Wood Stoves	0	0
City Park	Catalytic Wood Stoves	0	0
City Park	Non-Catalytic Wood Stoves	0	0
City Park	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	385,543	127,338	8,547.17

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	1,908,375	45.0990	0.0330	0.0040	3,682,648
Other Asphalt Surfaces	0.00000	45.0990	0.0330	0.0040	0.00000
Manufacturing	269,203	45.0990	0.0330	0.0040	1,210,928
General Office Building	746,756	45.0990	0.0330	0.0040	1,441,036
Enclosed Parking with Elevator	442,972	45.0990	0.0330	0.0040	0.00000
Health Club	224,335	45.0990	0.0330	0.0040	1,009,106
Research & Development	331,891	45.0990	0.0330	0.0040	640,461
Parking Lot	6,868.54	45.0990	0.0330	0.0040	0.00000
Day-Care Center	124,800	45.0990	0.0330	0.0040	291,362
City Park	0.00000	45.0990	0.0330	0.0040	0.00000

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	1,908,375	45.0990	0.0330	0.0040	0.00000
Other Asphalt Surfaces	0.00000	45.0990	0.0330	0.0040	0.00000
Manufacturing	269,203	45.0990	0.0330	0.0040	0.00000
General Office Building	746,756	45.0990	0.0330	0.0040	0.00000
Enclosed Parking with Elevator	442,972	45.0990	0.0330	0.0040	0.00000
Health Club	224,335	45.0990	0.0330	0.0040	0.00000
Research & Development	331,891	45.0990	0.0330	0.0040	0.00000
Parking Lot	6,868.54	45.0990	0.0330	0.0040	0.00000
Day-Care Center	124,800	45.0990	0.0330	0.0040	0.00000
City Park	0.00000	45.0990	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	20,439,381	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Manufacturing	6,937,500	0.00000
General Office Building	7,998,019	0.00000
Enclosed Parking with Elevator	0.00000	0.00000
Health Club	1,478,579	0.00000
Research & Development	9,833,879	0.00000
Parking Lot	0.00000	0.00000
Day-Care Center	793,457	0.00000

City Park	0.00000	0.00000

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	20,439,381	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Manufacturing	6,937,500	0.00000
General Office Building	7,998,019	0.00000
Enclosed Parking with Elevator	0.00000	0.00000
Health Club	1,478,579	0.00000
Research & Development	9,833,879	0.00000
Parking Lot	0.00000	0.00000
Day-Care Center	793,457	0.00000
City Park	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	106.950	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Manufacturing	37.2000	0.00000
General Office Building	41.8500	0.00000
Enclosed Parking with Elevator	0.00000	0.00000
Health Club	142.500	0.00000
Research & Development	1.51986	0.00000
Parking Lot	0.00000	0.00000
Day-Care Center	24.0500	0.00000

City Park	0.17200	0.00000

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	106.950	0.00000
Other Asphalt Surfaces	0.00000	0.00000
Manufacturing	37.2000	0.00000
General Office Building	41.8500	0.00000
Enclosed Parking with Elevator	0.00000	0.00000
Health Club	142.500	0.00000
Research & Development	1.51986	0.00000
Parking Lot	0.00000	0.00000
Day-Care Center	24.0500	0.00000
City Park	0.17200	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000

General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Health Club	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Research & Development	Household refrigerators and/or freezers	R-134a	1,430.00	0.45455	0.60000	0.00000	1.000000
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00230	4.00000	4.00000	18.0000
Day-Care Center	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Day-Care Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Day-Care Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
Day-Care Center	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.14.2. Mitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000

Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Health Club	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000
Research & Development	Household refrigerators and/or freezers	R-134a	1,430.00	0.45455	0.60000	0.00000	1.000000
Research & Development	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00230	4.00000	4.00000	18.0000
Day-Care Center	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Day-Care Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Day-Care Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
Day-Care Center	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2500	annual days of extreme heat
Extreme Precipitation	3.80000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.6600	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.4505
AQ-PM	42.3273
AQ-DPM	87.2433
Drinking Water	28.9871
Lead Risk Housing	35.2993
Pesticides	0.00000
Toxic Releases	23.5184
Traffic	90.6250
Effect Indicators	—
CleanUp Sites	69.0743
Groundwater	0.00000
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	23.8765
Solid Waste	59.1753
Sensitive Population	—
Asthma	33.5743
Cardio-vascular	31.2438
Low Birth Weights	80.3439
Socioeconomic Factor Indicators	—

Education	53.1258
Housing	79.9113
Linguistic	50.0068
Poverty	63.6432
Unemployment	23.7507

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.66084948
Employed	71.06377518
Median HI	43.00012832
Education	—
Bachelor's or higher	73.80982933
High school enrollment	100
Preschool enrollment	24.38085461
Transportation	—
Auto Access	39.77928911
Active commuting	79.36609778
Social	—
2-parent households	45.52803798
Voting	42.07622225
Neighborhood	—
Alcohol availability	87.46310792
Park access	81.35506224
Retail density	74.66957526
Supermarket access	37.61067625

Tree canopy	21.03169511
Housing	—
Homeownership	5.094315411
Housing habitability	28.16630309
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	62.18401129
Uncrowded housing	41.35762864
Health Outcomes	—
Insured adults	52.48299756
Arthritis	97.1
Asthma ER Admissions	66.4
High Blood Pressure	97.2
Cancer (excluding skin)	89.7
Asthma	88.8
Coronary Heart Disease	97.0
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	94.1
Life Expectancy at Birth	66.5
Cognitively Disabled	68.5
Physically Disabled	68.4
Heart Attack ER Admissions	67.1
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	91.3
Pedestrian Injuries	19.6
Physical Health Not Good	93.2
Stroke	95.7
Health Risk Behaviors	—

Binge Drinking	11.3
Current Smoker	65.4
No Leisure Time for Physical Activity	68.6
Climate Change Exposures	—
Wildfire Risk	2.0
SLR Inundation Area	0.0
Children	40.5
Elderly	96.3
English Speaking	37.2
Foreign-born	79.1
Outdoor Workers	92.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	29.3
Traffic Density	96.5
Traffic Access	23.0
Other Indices	—
Hardship	29.8
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Operations: Vehicle Data	Revised to based on KH VMT Analysis. Total trips provided and trip length is the same for all uses, so included all in English/performance center

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
General Office Building	Weekday Trip Rate	size/day	9.74000	82.1700
General Office Building	Saturday Trip Rate	size/day	2.21000	82.1700
General Office Building	Sunday Trip Rate	size/day	0.70000	82.1700
Manufacturing	Weekday Trip Rate	size/day	3.93000	0.00000
Manufacturing	Saturday Trip Rate	size/day	6.42000	0.00000
Manufacturing	Sunday Trip Rate	size/day	5.09000	0.00000
General Office Building	Weekday Trip Rate	size/day	9.74000	0.00000

General Office Building	Saturday Trip Rate	size/day	2.21000	0.00000
General Office Building	Sunday Trip Rate	size/day	0.70000	0.00000
Health Club	Weekday Trip Rate	size/day	32.9300	0.00000
Health Club	Saturday Trip Rate	size/day	20.8700	0.00000
Health Club	Sunday Trip Rate	size/day	26.7300	0.00000
Research & Development	Weekday Trip Rate	size/day	11.2600	0.00000
Research & Development	Saturday Trip Rate	size/day	1.90000	0.00000
Research & Development	Sunday Trip Rate	size/day	1.11000	0.00000
Day-Care Center	Weekday Trip Rate	size/day	47.6200	0.00000
Day-Care Center	Saturday Trip Rate	size/day	6.22000	0.00000
Day-Care Center	Sunday Trip Rate	size/day	5.84000	0.00000
City Park	Weekday Trip Rate	size/day	0.78000	0.00000
City Park	Saturday Trip Rate	size/day	1.96000	0.00000
City Park	Sunday Trip Rate	size/day	2.19000	0.00000

Miramar Existing Uses Detailed Report

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4.9. User Defined Emissions By Equipment Type

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4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

8.1. Justifications

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Miramar Existing Uses
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60000
Precipitation (days)	9.80000
Location	10440 Black Mountain Rd, San Diego, CA 92126, USA
County	San Diego
City	San Diego
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6362
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.43

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Parking Lot	2.43000	Acre	2.43000	0.00000	0.00000	0.00000	—	Lot 2
Parking Lot	16.0000	Space	0.14400	0.00000	0.00000	0.00000	—	CDC Parking

Parking Lot	0.90000	Acre	0.90000	0.00000	0.00000	0.00000	—	Lot 3
Day-Care Center	6.87600	1000sqft	0.15785	6,876.00	0.00000	0.00000	—	CDC
General Office Building	25.9410	1000sqft	0.59552	25,941.0	0.00000	0.00000	—	English Bldg
Manufacturing	16.5810	1000sqft	0.00000	0.00000	0.00000	0.00000	—	C-1 Bldg
City Park	2.65000	Acre	2.65000	0.00000	56,628.0	56,628.0	—	Tennis courts/hourglass field
Parking Lot	0.70000	Acre	0.70000	0.00000	0.00000	0.00000	—	Lot A

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.3. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	29.5330	20.5113	212.143	0.50991	0.41341	44.2265	44.6399	0.38723	11.2163	11.6035	45.7707	52,169.1	52,214.8	7.09010	2.00552	173.777	53,163.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	28.6915	22.4860	198.481	0.48706	0.41107	44.2265	44.6376	0.38550	11.2163	11.6018	45.7707	49,859.9	49,905.6	7.24026	2.12480	4.59300	50,724.4
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	28.4733	22.2058	198.943	0.49054	0.41221	43.9480	44.3602	0.38633	11.1467	11.5330	45.7707	50,210.7	50,256.5	7.19574	2.10334	75.0862	51,138.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	5.19638	4.05255	36.3071	0.08952	0.07523	8.02051	8.09574	0.07051	2.03427	2.10478	7.57786	8,312.96	8,320.54	1.19134	0.34823	12.4314	8,466.53

2.4. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	28.4805	20.2471	210.504	0.50832	0.39171	44.2265	44.6182	0.36614	11.2163	11.5825	—	51,775.1	51,775.1	2.38140	1.95637	173.687	52,591.3
Area	1.03860	0.01201	1.42719	0.00009	0.00254	—	0.00254	0.00192	—	0.00192	—	5.86921	5.86921	0.00025	0.00005	—	5.89037
Energy	0.01387	0.25222	0.21186	0.00151	0.01917	—	0.01917	0.01917	—	0.01917	—	379.537	379.537	0.08415	0.00754	—	383.887
Water	—	—	—	—	—	—	—	—	—	—	16.7476	8.58423	25.3319	1.72356	0.04156	—	80.8067
Waste	—	—	—	—	—	—	—	—	—	—	29.0231	0.00000	29.0231	2.90075	0.00000	—	101.542
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08965	0.08965
Total	29.5330	20.5113	212.143	0.50991	0.41341	44.2265	44.6399	0.38723	11.2163	11.6035	45.7707	52,169.1	52,214.8	7.09010	2.00552	173.777	53,163.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.8733	22.2338	198.270	0.48554	0.39190	44.2265	44.6184	0.36633	11.2163	11.5826	—	49,471.7	49,471.7	2.53181	2.07570	4.50335	50,158.1
Area	0.80431	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.01387	0.25222	0.21186	0.00151	0.01917	—	0.01917	0.01917	—	0.01917	—	379.537	379.537	0.08415	0.00754	—	383.887
Water	—	—	—	—	—	—	—	—	—	—	16.7476	8.58423	25.3319	1.72356	0.04156	—	80.8067
Waste	—	—	—	—	—	—	—	—	—	—	29.0231	0.00000	29.0231	2.90075	0.00000	—	101.542
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08965	0.08965
Total	28.6915	22.4860	198.481	0.48706	0.41107	44.2265	44.6376	0.38550	11.2163	11.6018	45.7707	49,859.9	49,905.6	7.24026	2.12480	4.59300	50,724.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.5396	21.9476	198.027	0.48899	0.39179	43.9480	44.3398	0.36622	11.1467	11.5129	—	49,819.7	49,819.7	2.48716	2.05421	74.9965	50,569.1
Area	0.91985	0.00592	0.70382	0.00004	0.00125	—	0.00125	0.00095	—	0.00095	—	2.89441	2.89441	0.00012	0.00002	—	2.90484
Energy	0.01387	0.25222	0.21186	0.00151	0.01917	—	0.01917	0.01917	—	0.01917	—	379.537	379.537	0.08415	0.00754	—	383.887

Water	—	—	—	—	—	—	—	—	—	—	16.7476	8.58423	25.3319	1.72356	0.04156	—	80.8067
Waste	—	—	—	—	—	—	—	—	—	—	29.0231	0.00000	29.0231	2.90075	0.00000	—	101.542
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08965	0.08965
Total	28.4733	22.2058	198.943	0.49054	0.41221	43.9480	44.3602	0.38633	11.1467	11.5330	45.7707	50,210.7	50,256.5	7.19574	2.10334	75.0862	51,138.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.02597	4.00544	36.1399	0.08924	0.07150	8.02051	8.09201	0.06684	2.03427	2.10111	—	8,248.22	8,248.22	0.41178	0.34010	12.4165	8,372.28
Area	0.16787	0.00108	0.12845	0.00001	0.00023	—	0.00023	0.00017	—	0.00017	—	0.47920	0.47920	0.00002	< 0.000005	—	0.48093
Energy	0.00253	0.04603	0.03866	0.00028	0.00350	—	0.00350	0.00350	—	0.00350	—	62.8366	62.8366	0.01393	0.00125	—	63.5568
Water	—	—	—	—	—	—	—	—	—	—	2.77276	1.42122	4.19398	0.28535	0.00688	—	13.3785
Waste	—	—	—	—	—	—	—	—	—	—	4.80510	0.00000	4.80510	0.48025	0.00000	—	16.8114
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01484	0.01484
Total	5.19638	4.05255	36.3071	0.08952	0.07523	8.02051	8.09574	0.07051	2.03427	2.10478	7.57786	8,312.96	8,320.54	1.19134	0.34823	12.4314	8,466.53

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

General Office Building	28.4805	20.2471	210.504	0.50832	0.39171	44.2265	44.6182	0.36614	11.2163	11.5825	—	51,775.1	51,775.1	2.38140	1.95637	173.687	52,591.3
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	28.4805	20.2471	210.504	0.50832	0.39171	44.2265	44.6182	0.36614	11.2163	11.5825	—	51,775.1	51,775.1	2.38140	1.95637	173.687	52,591.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	27.8733	22.2338	198.270	0.48554	0.39190	44.2265	44.6184	0.36633	11.2163	11.5826	—	49,471.7	49,471.7	2.53181	2.07570	4.50335	50,158.1
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	27.8733	22.2338	198.270	0.48554	0.39190	44.2265	44.6184	0.36633	11.2163	11.5826	—	49,471.7	49,471.7	2.53181	2.07570	4.50335	50,158.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	5.02597	4.00544	36.1399	0.08924	0.07150	8.02051	8.09201	0.06684	2.03427	2.10111	—	8,248.22	8,248.22	0.41178	0.34010	12.4165	8,372.28
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	5.02597	4.00544	36.1399	0.08924	0.07150	8.02051	8.09201	0.06684	2.03427	2.10111	—	8,248.22	8,248.22	0.41178	0.34010	12.4165	8,372.28

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	19.6797	19.6797	0.01440	0.00175	—	20.5599
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	5.73129	5.73129	0.00419	0.00051	—	5.98761
General Office Building	—	—	—	—	—	—	—	—	—	—	—	53.1896	53.1896	0.03892	0.00472	—	55.5684
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	78.6006	78.6006	0.05751	0.00697	—	82.1159
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	19.6797	19.6797	0.01440	0.00175	—	20.5599
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	5.73129	5.73129	0.00419	0.00051	—	5.98761
General Office Building	—	—	—	—	—	—	—	—	—	—	—	53.1896	53.1896	0.03892	0.00472	—	55.5684
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	78.6006	78.6006	0.05751	0.00697	—	82.1159
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	3.25820	3.25820	0.00238	0.00029	—	3.40392
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	0.94888	0.94888	0.00069	0.00008	—	0.99132
General Office Building	—	—	—	—	—	—	—	—	—	—	—	8.80614	8.80614	0.00644	0.00078	—	9.19999
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	13.0132	13.0132	0.00952	0.00115	—	13.5952

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00160	0.02909	0.02443	0.00017	0.00221	—	0.00221	0.00221	—	0.00221	—	34.7061	34.7061	0.00307	0.00007	—	34.8023
General Office Building	0.01227	0.22313	0.18743	0.00134	0.01696	—	0.01696	0.01696	—	0.01696	—	266.230	266.230	0.02356	0.00050	—	266.969
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000

Total	0.01387	0.25222	0.21186	0.00151	0.01917	—	0.01917	0.01917	—	0.01917	—	300.936	300.936	0.02663	0.00057	—	301.771
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00160	0.02909	0.02443	0.00017	0.00221	—	0.00221	0.00221	—	0.00221	—	34.7061	34.7061	0.00307	0.00007	—	34.8023
General Office Building	0.01227	0.22313	0.18743	0.00134	0.01696	—	0.01696	0.01696	—	0.01696	—	266.230	266.230	0.02356	0.00050	—	266.969
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.01387	0.25222	0.21186	0.00151	0.01917	—	0.01917	0.01917	—	0.01917	—	300.936	300.936	0.02663	0.00057	—	301.771
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	0.00029	0.00531	0.00446	0.00003	0.00040	—	0.00040	0.00040	—	0.00040	—	5.74598	5.74598	0.00051	0.00001	—	5.76192
General Office Building	0.00224	0.04072	0.03421	0.00024	0.00309	—	0.00309	0.00309	—	0.00309	—	44.0774	44.0774	0.00390	0.00008	—	44.1997
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	—	0.00000	0.00000	0.00000	0.00000	—	0.00000
Total	0.00253	0.04603	0.03866	0.00028	0.00350	—	0.00350	0.00350	—	0.00350	—	49.8234	49.8234	0.00441	0.00009	—	49.9616

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.74877	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05554	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23429	0.01201	1.42719	0.00009	0.00254	—	0.00254	0.00192	—	0.00192	—	5.86921	5.86921	0.00025	0.00005	—	5.89037
Total	1.03860	0.01201	1.42719	0.00009	0.00254	—	0.00254	0.00192	—	0.00192	—	5.86921	5.86921	0.00025	0.00005	—	5.89037
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.74877	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05554	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.80431	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.13665	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01014	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02109	0.00108	0.12845	0.00001	0.00023	—	0.00023	0.00017	—	0.00017	—	0.47920	0.47920	0.00002	< 0.000005	—	0.48093

Total	0.16787	0.00108	0.12845	0.00001	0.00023	—	0.00023	0.00017	—	0.00017	—	0.47920	0.47920	0.00002	< 0.000005	—	0.48093

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.56511	0.24805	0.81316	0.05813	0.00140	—	2.68319
General Office Building	—	—	—	—	—	—	—	—	—	—	8.83498	3.87799	12.7130	0.90876	0.02187	—	41.9489
Manufacturing	—	—	—	—	—	—	—	—	—	—	7.34753	3.22510	10.5726	0.75576	0.01819	—	34.8864
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	1.23309	1.23309	0.00090	0.00011	—	1.28824
Total	—	—	—	—	—	—	—	—	—	—	16.7476	8.58423	25.3319	1.72356	0.04156	—	80.8067
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.56511	0.24805	0.81316	0.05813	0.00140	—	2.68319
General Office Building	—	—	—	—	—	—	—	—	—	—	8.83498	3.87799	12.7130	0.90876	0.02187	—	41.9489

Manufact	—	—	—	—	—	—	—	—	—	—	7.34753	3.22510	10.5726	0.75576	0.01819	—	34.8864
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	1.23309	1.23309	0.00090	0.00011	—	1.28824
Total	—	—	—	—	—	—	—	—	—	—	16.7476	8.58423	25.3319	1.72356	0.04156	—	80.8067
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.09356	0.04107	0.13463	0.00962	0.00023	—	0.44423
General Office Building	—	—	—	—	—	—	—	—	—	—	1.46273	0.64205	2.10478	0.15046	0.00362	—	6.94511
Manufacturing	—	—	—	—	—	—	—	—	—	—	1.21647	0.53395	1.75042	0.12513	0.00301	—	5.77584
City Park	—	—	—	—	—	—	—	—	—	—	0.00000	0.20415	0.20415	0.00015	0.00002	—	0.21328
Total	—	—	—	—	—	—	—	—	—	—	2.77276	1.42122	4.19398	0.28535	0.00688	—	13.3785

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	4.81747	0.00000	4.81747	0.48149	0.00000	—	16.8547
General Office Building	—	—	—	—	—	—	—	—	—	—	13.0020	0.00000	13.0020	1.29950	0.00000	—	45.4895

Manufact	—	—	—	—	—	—	—	—	—	—	11.0808	0.00000	11.0808	1.10749	0.00000	—	38.7680
City Park	—	—	—	—	—	—	—	—	—	—	0.12282	0.00000	0.12282	0.01228	0.00000	—	0.42972
Total	—	—	—	—	—	—	—	—	—	—	29.0231	0.00000	29.0231	2.90075	0.00000	—	101.542
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	4.81747	0.00000	4.81747	0.48149	0.00000	—	16.8547
General Office Building	—	—	—	—	—	—	—	—	—	—	13.0020	0.00000	13.0020	1.29950	0.00000	—	45.4895
Manufacturing	—	—	—	—	—	—	—	—	—	—	11.0808	0.00000	11.0808	1.10749	0.00000	—	38.7680
City Park	—	—	—	—	—	—	—	—	—	—	0.12282	0.00000	0.12282	0.01228	0.00000	—	0.42972
Total	—	—	—	—	—	—	—	—	—	—	29.0231	0.00000	29.0231	2.90075	0.00000	—	101.542
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000	0.00000	0.00000	0.00000	—	0.00000
Day-Care Center	—	—	—	—	—	—	—	—	—	—	0.79759	0.00000	0.79759	0.07972	0.00000	—	2.79048
General Office Building	—	—	—	—	—	—	—	—	—	—	2.15262	0.00000	2.15262	0.21515	0.00000	—	7.53130
Manufacturing	—	—	—	—	—	—	—	—	—	—	1.83456	0.00000	1.83456	0.18336	0.00000	—	6.41849
City Park	—	—	—	—	—	—	—	—	—	—	0.02033	0.00000	0.02033	0.00203	0.00000	—	0.07115
Total	—	—	—	—	—	—	—	—	—	—	4.80510	0.00000	4.80510	0.48025	0.00000	—	16.8114

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02656	0.02656
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06309	0.06309
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08965	0.08965
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02656	0.02656
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.06309	0.06309
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.08965	0.08965
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Day-Care Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00440	0.00440

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01045	0.01045
Manufacturing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00000	0.00000
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01484	0.01484

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Day-Care Center	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
General Office Building	7,016.00	7,016.00	7,016.00	2,560,841	62,639.1	62,639.1	62,639.1	22,863,281
Manufacturing	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
City Park	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0

Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0
Day-Care Center	Wood Fireplaces	0	0
Day-Care Center	Gas Fireplaces	0	0
Day-Care Center	Propane Fireplaces	0	0
Day-Care Center	Electric Fireplaces	0	0
Day-Care Center	No Fireplaces	0	0
Day-Care Center	Conventional Wood Stoves	0	0

Day-Care Center	Catalytic Wood Stoves	0	0
Day-Care Center	Non-Catalytic Wood Stoves	0	0
Day-Care Center	Pellet Wood Stoves	0	0
General Office Building	Wood Fireplaces	0	0
General Office Building	Gas Fireplaces	0	0
General Office Building	Propane Fireplaces	0	0
General Office Building	Electric Fireplaces	0	0
General Office Building	No Fireplaces	0	0
General Office Building	Conventional Wood Stoves	0	0
General Office Building	Catalytic Wood Stoves	0	0
General Office Building	Non-Catalytic Wood Stoves	0	0
General Office Building	Pellet Wood Stoves	0	0
Manufacturing	Wood Fireplaces	0	0
Manufacturing	Gas Fireplaces	0	0
Manufacturing	Propane Fireplaces	0	0
Manufacturing	Electric Fireplaces	0	0
Manufacturing	No Fireplaces	0	0
Manufacturing	Conventional Wood Stoves	0	0
Manufacturing	Catalytic Wood Stoves	0	0
Manufacturing	Non-Catalytic Wood Stoves	0	0
Manufacturing	Pellet Wood Stoves	0	0
City Park	Wood Fireplaces	0	0
City Park	Gas Fireplaces	0	0
City Park	Propane Fireplaces	0	0
City Park	Electric Fireplaces	0	0
City Park	No Fireplaces	0	0
City Park	Conventional Wood Stoves	0	0
City Park	Catalytic Wood Stoves	0	0

City Park	Non-Catalytic Wood Stoves	0	0
City Park	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0.00000	0.00000	49,225.5	16,408.5	10,909.2

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	180.000

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Parking Lot	92,725.3	45.0990	0.0330	0.0040	0.00000

Parking Lot	5,494.83	45.0990	0.0330	0.0040	0.00000
Parking Lot	34,342.7	45.0990	0.0330	0.0040	0.00000
Day-Care Center	46,385.1	45.0990	0.0330	0.0040	108,292
General Office Building	430,480	45.0990	0.0330	0.0040	830,709
Manufacturing	0.00000	45.0990	0.0330	0.0040	0.00000
City Park	0.00000	45.0990	0.0330	0.0040	0.00000
Parking Lot	26,711.0	45.0990	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Parking Lot	0.00000	0.00000
Parking Lot	0.00000	0.00000
Parking Lot	0.00000	0.00000
Day-Care Center	294,909	0.00000
General Office Building	4,610,591	0.00000
Manufacturing	3,834,356	0.00000
City Park	0.00000	1,880,574
Parking Lot	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Parking Lot	0.00000	0.00000
Parking Lot	0.00000	0.00000
Parking Lot	0.00000	0.00000

Day-Care Center	8.93880	0.00000
General Office Building	24.1251	0.00000
Manufacturing	20.5604	0.00000
City Park	0.22790	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Day-Care Center	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
Day-Care Center	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Day-Care Center	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.00004	1.000000	0.00000	1.000000
Day-Care Center	Walk-in refrigerators and freezers	R-404A	3,922.00	0.00040	7.50000	7.50000	20.0000
General Office Building	Household refrigerators and/or freezers	R-134a	1,430.00	0.01679	0.60000	0.00000	1.000000
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088.00	0.30000	4.00000	4.00000	18.0000
City Park	Other commercial A/C and heat pumps	R-410A	2,088.00	0.00180	4.00000	4.00000	18.0000
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430.00	0.03750	1.000000	0.00000	1.000000

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14.2500	annual days of extreme heat
Extreme Precipitation	3.80000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	16.6600	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	48.4505
AQ-PM	42.3273

AQ-DPM	87.2433
Drinking Water	28.9871
Lead Risk Housing	35.2993
Pesticides	0.00000
Toxic Releases	23.5184
Traffic	90.6250
Effect Indicators	—
CleanUp Sites	69.0743
Groundwater	0.00000
Haz Waste Facilities/Generators	64.6327
Impaired Water Bodies	23.8765
Solid Waste	59.1753
Sensitive Population	—
Asthma	33.5743
Cardio-vascular	31.2438
Low Birth Weights	80.3439
Socioeconomic Factor Indicators	—
Education	53.1258
Housing	79.9113
Linguistic	50.0068
Poverty	63.6432
Unemployment	23.7507

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.66084948

Employed	71.06377518
Median HI	43.00012832
Education	—
Bachelor's or higher	73.80982933
High school enrollment	100
Preschool enrollment	24.38085461
Transportation	—
Auto Access	39.77928911
Active commuting	79.36609778
Social	—
2-parent households	45.52803798
Voting	42.07622225
Neighborhood	—
Alcohol availability	87.46310792
Park access	81.35506224
Retail density	74.66957526
Supermarket access	37.61067625
Tree canopy	21.03169511
Housing	—
Homeownership	5.094315411
Housing habitability	28.16630309
Low-inc homeowner severe housing cost burden	14.65417683
Low-inc renter severe housing cost burden	62.18401129
Uncrowded housing	41.35762864
Health Outcomes	—
Insured adults	52.48299756
Arthritis	97.1
Asthma ER Admissions	66.4

High Blood Pressure	97.2
Cancer (excluding skin)	89.7
Asthma	88.8
Coronary Heart Disease	97.0
Chronic Obstructive Pulmonary Disease	94.6
Diagnosed Diabetes	94.1
Life Expectancy at Birth	66.5
Cognitively Disabled	68.5
Physically Disabled	68.4
Heart Attack ER Admissions	67.1
Mental Health Not Good	71.0
Chronic Kidney Disease	95.6
Obesity	91.3
Pedestrian Injuries	19.6
Physical Health Not Good	93.2
Stroke	95.7
Health Risk Behaviors	—
Binge Drinking	11.3
Current Smoker	65.4
No Leisure Time for Physical Activity	68.6
Climate Change Exposures	—
Wildfire Risk	2.0
SLR Inundation Area	0.0
Children	40.5
Elderly	96.3
English Speaking	37.2
Foreign-born	79.1
Outdoor Workers	92.3

Climate Change Adaptive Capacity	—
Impervious Surface Cover	29.3
Traffic Density	96.5
Traffic Access	23.0
Other Indices	—
Hardship	29.8
Other Decision Support	—
2016 Voting	43.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	56.0000
Healthy Places Index Score for Project Location (b)	57.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Operations: Vehicle Data	Revised to trip gen based on 1.15 ADT/student and 6,101 on-site students in 2025 (from LLG VMT Analysis). Default trip length the same for all LU so included all trips in Gen Office

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Day-Care Center	Weekday Trip Rate	size/day	47.6200	0.00000
Day-Care Center	Saturday Trip Rate	size/day	6.22000	0.00000
Day-Care Center	Sunday Trip Rate	size/day	5.84000	0.00000
General Office Building	Weekday Trip Rate	size/day	9.74000	270.460
General Office Building	Saturday Trip Rate	size/day	2.21000	270.460
General Office Building	Sunday Trip Rate	size/day	0.70000	270.460
Manufacturing	Weekday Trip Rate	size/day	3.93000	0.00000
Manufacturing	Saturday Trip Rate	size/day	6.42000	0.00000
Manufacturing	Sunday Trip Rate	size/day	5.09000	0.00000
Manufacturing	Weekday Primary Trip	%	100.0000	53.3000
Manufacturing	Weekday Divert Trip	%	0.00000	11.2000
Manufacturing	Weekday Pass-By Trip	%	0.00000	35.5000
City Park	Weekday Trip Rate	size/day	0.78000	0.00000
City Park	Saturday Trip Rate	size/day	1.96000	0.00000
City Park	Sunday Trip Rate	size/day	2.19000	0.00000

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Appendix C. Biological Resources Survey Letter Report

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Harris & Associates

September 11, 2026

Lance R. Lareau, District Architect
San Diego Community College District
3375 Camino Del Rio South, Suite 310
San Diego, California 92108-3883

Subject: Biological Resources Survey Letter Report for the San Diego Miramar College Master Plan Project

Dear Mr. Lareau:

This biological resources survey letter report documents the biological resources survey results for the proposed San Diego Miramar College Master Plan Project (Master Plan or project) in the City of San Diego, County of San Diego, California (Attachment 1, Figures; Figure 1, Regional Location, and Figure 2, Project Location).

Introduction

At the request of the San Diego Community College District (District), Harris & Associates (Harris) prepared this biological resources survey letter report to support the Program Environmental Impact Report (PEIR) for the project in the City of San Diego (City), San Diego County (County), California (Figures 1 and 2). The purpose of this letter report is to describe existing biological resources at San Diego Miramar College (project site, Miramar College, or campus), evaluate the potential for sensitive biological resources to occur on the campus, and assess the types of direct, indirect, and cumulative biological impacts that could result from implementation of the project at a project and programmatic level.

The campus encompasses approximately 114 acres within a highly urbanized institutional setting and is largely developed with academic and administrative buildings, parking areas, internal circulation infrastructure, and landscaped open spaces. Native vegetation communities, aquatic resources, and sensitive biological resources are primarily confined to a designated vernal pool preserve in the northwestern portion of the campus, which represents the principal area of biological sensitivity on the project site.

The project includes near-term and long-term campus-wide improvements to replace aging buildings and enhance campus connectivity. Improvements would consist of the demolition, construction, and renovation of existing buildings and facilities throughout the campus over a period of approximately 20 years. The project would include the demolition of multiple buildings, surface parking lots, and recreational and open space facilities to make way for the construction of new modernized buildings, a parking structure, and upgraded recreational facilities. The project would also renovate and modernize existing buildings and re-orient existing spaces, including pedestrian pathways and on-campus roadways.

The following projects are anticipated to be designed and constructed in the near term:

- English Gallery and Performing Arts Center Building
- Early Education Center Building

No specific timing or phasing is identified for the following long-term projects:

- Public Safety A-2 Building Modernization
- Heavy Duty Diesel Technology C-1 Building

- Welcome and Multicultural Center Building
- Parking Structure with Athletic Facilities
- Science and Automotive S-2 through S-6 Building Modernization
- Miramar College Driveway Modification
- Athletics Building and Courts
- Hourglass Field Modernization
- STEM Lab and Student Health Center Building
- North Campus Drive Street Parking
- Vernal Pool Community Trail Extension

Implementation of the project has the potential to result in direct and indirect impacts on biological resources, particularly within or adjacent to the vernal pool preserve, where future improvements, such as elevated trails, viewing platforms, or other campus enhancements, could affect sensitive habitats and species. Program-level impact mechanisms may include vegetation removal, changes to vernal pool hydrology, disturbance to sensitive wildlife species, and indirect effects, such as dust, noise, lighting, and the introduction or spread of invasive species. This letter report establishes a project-level and program-level environmental baseline for biological resources on the campus and provides a framework for evaluating potential impacts associated with future development activities. Further biological studies and regulatory permitting may be required at the time that future long-term individual improvements are designed, specifically for the vernal pool preserve, consistent with the mitigation measures and performance standards identified in the PEIR.

This letter report was prepared in accordance with the California Environmental Quality Act (CEQA). The biological evaluation included a review of available biological resource databases, a biological reconnaissance survey, habitat mapping, and an assessment of the potential presence of sensitive habitats, sensitive plant and wildlife species, and jurisdictional aquatic resources on the project site.

Regulatory Framework

Federal

Clean Water Act, Section 404 (33 CFR 328.3[a])

These provisions regulate the discharge of dredged or fill material in waters of the United States, including wetlands. Activities that discharge dredge or fill material into waters of the United States can be authorized by the U.S. Army Corps of Engineers (USACE).

On August 29, 2023, the U.S. Environmental Protection Agency and USACE issued a final rule to amend the final "Revised Definition of Waters of the U.S." The 2023 final rule became effective on September 8, 2023. Under the 2023 final rule:

(a) Waters of the U.S. are defined as:

1. Waters which are:
   i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
   ii. The territorial seas; or
   iii. Interstate waters;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under (a)(5) of this section;

3. Tributaries of waters identified in (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
   i. Waters identified in (a)(1) of this section; or
   ii. Relatively permanent, standing or continuously flowing bodies of water identified in (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in (a)(1) or (a)(3) of this section.

Federal Endangered Species Act, Sections 4(d), 7, or 10(a) (16 USC 1531 et seq.; 50 CFR Part 402)

This act prohibits the "take" (i.e., harming, harassing, or killing individuals or destroying associated habitat) of species federally listed as threatened or endangered. Take incidental to otherwise lawful activities can be authorized by the U.S. Fish and Wildlife Service (USFWS) through a permit under the federal Endangered Species Act (FESA), Sections 4(d), 7, or 10(a).

Migratory Bird Treaty Act (16 USC 703–712; 50 CFR 10)

The Migratory Bird Treaty Act (MBTA) prohibits the direct or indirect take of migratory birds and their active nests unless permitted.

State

California Migratory Bird Protection Act (Assembly Bill 454)

The California Migratory Bird Protection Act prohibits the take or possession of any migratory non-game bird, as well as their nests and eggs, protected under the federal MBTA unless authorized by regulation.

California Fish and Game Code

- **Birds of Prey Protection Provision (Section 3503.5)**
  This provision prohibits the taking of birds of prey (orders Falconiformes and Strigiformes), including their nests and eggs.
- **California Endangered Species Act (Sections 2050 et seq.)**
  The California Endangered Species Act (CESA) prohibits any activities that would jeopardize or take a species designated as threatened or endangered by the state.
- **California Fish and Game Code, Section 1602**
  Section 1602 regulates water resources in the State of California. Activities that divert or obstruct the natural flow of, or change or use material from, the bed, channel, or bank of any river, stream, or lake may be authorized by the California Department of Fish and Wildlife (CDFW). CDFW jurisdiction includes intermittent and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated or to the limit of the adjacent riparian vegetation, located contiguous to the watercourse, if the stream or lake is vegetated.
- **California Fish and Game Code, Section 3503**
  Section 3503 prohibits the take, possession, or needless destruction of the nests or eggs of any birds except as otherwise provided by the code or any regulation made pursuant thereto.
- **California Fully Protected Wildlife Species Provision (Section 3511, 4700, 5050, and 5515)**
  These provisions prohibit the take of fully protected birds, mammals, amphibians, and fish.

- **California Native Plant Protection Act (Section 1900–1913)**
  These provisions preserve, protect, and enhance endangered or rare native plants of the state.
- **Streambed Alteration Agreement (Section 1600)**
  The CFGC requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or their tributaries, or use materials from a streambed to submit a notification for a streambed alteration agreement to the CDFW.
- **Natural Community Conservation Planning Act, as Amended (Section 2800–2835)**
  The primary objective of the Natural Community Conservation Planning program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species listing by focusing on the long-term suitability of wildlife and plant communities and including key interests in the process.

California Environmental Quality Act, as Amended (California Public Resources Code, Section 21000 et seq.)

The goal of CEQA is to assist California public agencies in identifying potentially significant negative environmental impacts caused by their actions and avoiding or mitigating those impacts when feasible.

Regional Water Quality Control Board

The Regional Water Quality Control Board (RWQCB) regulates impacts on water quality under Section 401 of the Clean Water Act (CWA). A project must comply with CWA Section 401 before the USACE can issue a Section 404 permit. The RWQCB will issue a Section 401 water quality certification or waiver of certification depending on the extent of impacts on waters of the United States. The RWQCB also regulates impacts on waters of the state (usually limited to "isolated" waters or swales that may not fall under USACE jurisdiction) under the Porter-Cologne Water Quality Control Act (Porter-Cologne Act).

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act is regulated by the RWQCB for impacts on waters of the state. The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes waters of the state and waters of the United States as mandated by CWA Section 401 and the Porter-Cologne Act. Although water quality issues related to impacts on waterways are normally addressed during Section 401 water quality certification, should a water of the State of California be determined by the USACE to not have CWA jurisdiction, the Porter-Cologne Act would be addressed under a construction general permit, state general waste discharge order, or waste discharge requirements, depending on the level of impact and the properties of the waterway.

Local (Non-Regulatory)

Although the campus is not included in the City's Multiple Species Conservation Program (MSCP) and, as such, its policies are not applicable to the campus, the MSCP was considered during the preparation of the biological resources analysis due to its applicability to the surrounding region.

City of San Diego Multiple Species Conservation Program

The City's MSCP is a regional habitat conservation planning program developed pursuant to the State of California's Natural Community Conservation Planning Act and FESA. The MSCP provides a framework for the long-term conservation of sensitive species and habitats within southwestern San Diego County while allowing for compatible development. The program establishes the Multi-Habitat Planning Area

(MHPA), which is a preserve system designed to protect core biological resources, maintain habitat linkages, and support covered species. The MSCP identifies a suite of "covered species," including federally and state-listed species and other sensitive species, for which conservation is addressed at a regional scale. Projects outside the MHPA are subject to the City's MSCP Subarea Plan requirements, including avoidance and minimization measures where applicable, and consistency with the overall conservation strategy.

The City implements the MSCP through its Subarea Plan, which identifies development standards, biological impact avoidance measures, and mitigation requirements applicable to projects within the City's jurisdiction. The District is not an enrolled agency in the Natural Communities Conservation Planning program, and the MSCP does not apply to District projects carried out on the campus. Preserve areas designated by the City's MSCP (i.e., MHPA) are not on the Miramar College property. The closest MHPA to the campus is approximately 0.56 mile east of the campus, separated from the survey area by the Interstate 15 freeway and intervening development.

Methods and Survey Limitations

The biological resources analyses conducted in support of the project included a database review and a biological reconnaissance survey, which serve to document the project site's existing biological conditions. The results provide information on potential constraints to project development due to the presence (or absence) of sensitive biological resources.

Database Review

A review of the following online databases was conducted for the project:

- CDFW California Natural Diversity Database (CDFW 2026a)
- CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2026b)
- SanGIS SanBIOS database (SanGIS 2026)
- USFWS Information for Planning and Consultation (USFWS 2026a)
- USFWS National Wetlands Inventory (NWI) Wetlands Mapper (USFWS 2026b)
- Consortium of California Herbaria database (CCH 2026)
- Calflora database (Calflora 2026)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2026)

Field Reconnaissance Survey

Harris biologists Chris Thomson and Mia Claridy conducted a biological reconnaissance survey of the project site on April 25, 2025. A 100-foot survey buffer was applied to the project site for the biological reconnaissance survey, together referred to as the survey area. The survey was conducted by walking meandering transects throughout the survey area and mapping vegetation communities and land cover types, documenting plant and wildlife species, noting suitable habitat, and evaluating the potential for the occurrence of sensitive, rare, threatened, and endangered plant and wildlife species. Vegetation mapping was recorded in the field using the ArcGIS Field Maps application with an aerial image of the survey area. Wildlife identifications were made in the field directly through visual observation (aided by binoculars) or indirectly through call, burrow, track, or scat detection. An aquatic resources delineation was not conducted as part of the biological reconnaissance survey.

The biological reconnaissance survey was conducted during a period outside peak ponding conditions for vernal pools. As such, standing water was limited or absent within depressional features at the time of the survey. Consequently, the vernal pool boundaries were interpreted based on observable geomorphic characteristics, soil indicators, and vegetative assemblages indicative of vernal pool hydrology. Because

peak inundation conditions were not present, the vernal pools mapped during the survey may not fully reflect the maximum extent, depth, or precise configuration of ponding that may occur during wetter periods. Therefore, the mapped vernal pool features should be considered approximate and may differ from actual vernal pool dimensions and locations under peak hydrologic conditions.

Survey Results

The results presented in this section provide data from the database reviews and the reconnaissance survey of the survey area.

Physical Characteristics

The following sections describe the existing physical characteristics and conditions of the survey area. Representative photographs are provided in Attachment 2, Photographic Log.

Land Use

The project site is within the developed urban environment of southwestern San Diego and is surrounded by institutional, commercial, and residential land uses. The approximately 114-acre parcel is part of the campus, which consists of multiple multi-story academic and administrative buildings, student facilities, and associated site infrastructure. The campus has been in continuous institutional use for higher educational purposes for several decades. Review of historical aerial imagery indicates that the site and broader campus were substantially developed prior to the 1990s, with major educational buildings, parking areas, and circulation infrastructure already in place (Google Earth 2026). The project site is fully graded and developed except a designated vernal pool preserve on the northwestern portion of the site. This preserve has been subject to restoration activities, and no other undeveloped or vacant areas are present within the project footprint. Existing land uses on the project site include academic buildings, landscaped pedestrian plazas, and associated paved access improvements that support ongoing institutional activities.

Topography and Soils

The project site consists of gently sloping terrain that is largely graded and developed as part of the campus. Elevation in the survey area ranges from approximately 495 to 530 feet above mean sea level (AMSL). The topographic contours depicted on Figure 3, USGS Topographic Map, reflect these site elevations.

The project site is underlain by soils mapped as Redding cobbly loam, Redding gravelly loam, and riverwash (Figure 4, Soils). The Redding series consists of moderately deep, well-drained soils that formed in alluvium derived from mixed sedimentary and metavolcanic rocks. Redding cobbly loam is typically found on old alluvial fans and terraces, with slopes ranging from 0 to 30 percent. These soils generally have a surface layer of cobbly loam underlain by a gravelly clay subsoil. Runoff is medium to rapid, and the erosion hazard is moderate to high. Redding gravelly loam is similar in composition but contains a greater proportion of gravel within the surface horizon, contributing to moderate permeability and rapid runoff conditions. Riverwash soils occur along natural drainage features and are characterized by recent deposits of sand, gravel, and cobbles. These soils are excessively drained, highly permeable, and subject to frequent flooding and erosion. Riverwash areas generally lack well-developed horizons and support limited vegetation due to unstable substrate and hydrologic disturbance. Together, these soil types reflect the alluvial and terrace geology of the region, with well-drained loam soils dominating upland areas and unstable riverwash deposits confined to drainage corridors (USDA 2018).

Hydrology

The NWI results show Carroll Canyon Creek as the only aquatic resource in the survey area, and this feature is labeled by NWI as a National Hydrography Dataset flow line (Figure 5, Hydrology). Carroll

Canyon Creek, as identified in the NWI mapping results, was not observed on the project site during the 2025 biological reconnaissance survey.

For a larger overview of hydrologic connections, the survey area is within the Los Peñasquitos Watershed Management Area (WMA), specifically the Carroll Canyon Subwatershed (Hydrologic Unit 906.12). The Los Peñasquitos WMA drains an area of approximately 178 square miles in the northern portion of the City. Major subwatersheds include Carroll Canyon, Los Peñasquitos Creek, and Carmel Valley Creek. The Los Peñasquitos WMA is bounded by the San Dieguito River Watershed to the north and the San Diego River Watershed to the south (Project Clean Water 2026).

Surface water features within the Los Peñasquitos WMA ultimately drain westward to Los Peñasquitos Lagoon, a coastal estuarine system that provides habitat for sensitive biological resources and supports downstream beneficial uses. Based on a review of the U.S. Geological Survey (USGS) National Hydrography Dataset, ephemeral drainages and stormwater conveyance features occur within the broader Miramar College area, including engineered channels and storm drain infrastructure that direct flows west into Carroll Canyon and ultimately to Los Peñasquitos Creek (USGS 2026).

The majority of the survey area is developed as part of the campus, with hydrology dominated by stormwater runoff from impervious surfaces, including buildings, roadways, and parking areas. Stormwater is conveyed through on-site drainage infrastructure to municipal storm drain systems, which ultimately discharge to Carroll Canyon Creek and downstream receiving waters. No natural streams or open water features are present within the developed campus footprint.

Climate

On a regional scale, the County has a Mediterranean climate, characterized by mild, wet winters and hot, dry summers. This climatic pattern is influenced by a semi-permanent high-pressure system over the Pacific Ocean that creates seasonal fog and a persistent marine layer along the coast. The project site is situated on the inland mesa within the Peninsular Ranges of Southern California. The regional climate is classified as dry, subhumid mesothermal, which results in a growing season concentrated in the cooler, wetter months of late winter and early spring. The rainy season in the County typically extends from October through March, while summer months, which are typically hot and dry, extend from June through September. Vegetation commonly enters dormancy during late summer until the first significant rainfall of the fall.

The nearest weather station to the project site is the Miramar Naval Air Station, south of the campus. Average high temperatures recorded at this station range from approximately 67 degrees Fahrenheit (°F) in December to 84°F in September. Winter precipitation typically ranges from 0.75 to 2.5 inches per month (November through February). Average annual precipitation at the Miramar Naval Air Station between 2015 and 2025 was approximately 13.2 inches, consistent with long-term regional patterns (NRCS 2026). In 2024, total annual rainfall was 13.6 inches, approximately 8 inches below the previous year. By April 2025, when biological fieldwork for the project was conducted, annual precipitation totaled 6.8 inches, approximately 7 inches below the prior year's total. Consistent with regional climatic patterns, September is typically the warmest and driest month, February is the wettest, and December is the coolest.

Biological Resources

Vegetation Communities and Land Cover Types

The project site is within the southwestern California region of the California Floristic Province (Jepson eFlora Project 2026). Four vegetation communities and one land cover type were identified on the project site and in the survey area (Oberbauer et al. 2008) (Figure 6, Vegetation Communities and Land Cover):

- Vegetation communities
  - Diegan coastal sage scrub – coastal form (including disturbed)
  - Non-native grassland
  - Non-native riparian
  - Vernal pool
- Land cover type
  - Urban/developed land

The CDFW considers vernal pools, Diegan coastal sage scrub, and non-native riparian sensitive natural communities and riparian habitat. Table 1, Vegetation Communities and Land Cover Types on the Project Site and in the Survey Area, presents the acreages of vegetation communities and land cover types that occur. Figure 6 presents the vegetation community and land cover type boundaries.

Table 1. Vegetation Communities and Land Cover Types on the Project Site and in the Survey Area

Vegetation Community and Land Cover Type	Project Site (acres)[1]	Survey Area (acres)[1]
Upland		
Diegan Coastal Sage Scrub – Coastal Form (including Disturbed) (32510)	5.30	5.30
Non-Native Grassland (42200)	4.26	4.26
Subtotal	*9.56*	*9.56*
Wetland		
Non-Native Riparian (65000)	0.14	0.14
Vernal Pool (44000)	1.00	1.00
Subtotal	*1.14*	*1.14*
Disturbed/Developed		
Urban/Developed Land (12000)	103.51	124.95
Subtotal	*103.51*	*124.95*
Total	**114.21**	**135.65**

Sources: City of San Diego 2018; Oberbauer et al. 2008.
Notes:
[1] Acreages rounded up to one-hundredth.

The vegetation communities and land cover types observed on the project site and in the survey area are described in the following sections.

Upland Vegetation Communities

Diegan Coastal Sage Scrub – Coastal Form (including Disturbed) (32510)
Diegan coastal sage scrub – coastal form typically consists of low-growing, drought-deciduous shrubs dominated by species such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and black sage (*Salvia mellifera*). The community occurs on coastal mesas, slopes, and terraces at lower elevations where marine influence moderates temperature and provides supplemental moisture. Vegetative cover is generally moderate, although seasonal drought-deciduous characteristics may reduce cover during the dry summer months. This vegetation community provides habitat for sensitive wildlife species, including the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) (Oberbauer et al. 2008).

Diegan coastal sage scrub – coastal form in the survey area occurs completely on the project site and comprises approximately 5.30 acres in the vernal pool preserve in the northwestern portion of the survey area (Figure 6). On the project site, this vegetation community is characterized by low-growing, drought-deciduous shrubs, including California sagebrush, broom baccharis (*Baccharis sarothroides*), black sage, and white sage (*Salvia apiana*).

Non-Native Grassland (42200)
Non-native grassland consists primarily of annual, non-native grass species that establish dense-to-sparse cover during the winter and spring months. Characteristic species include wild oats (*Avena* spp.), bromes (*Bromus* spp.), and ryegrass (*Festuca* spp.), often interspersed with ruderal forbs such as filaree (*Erodium* spp.) and mustard (*Brassica* spp.). Vegetative cover is highly variable, depending on rainfall and disturbance history, and typically ranges from 10 to 75 percent. This community often occurs on previously disturbed lands, roadsides, and abandoned agricultural fields (Oberbauer et al. 2008).

Non-native grassland occurs completely on the project site and comprises approximately 4.26 acres in the northwestern portion of the survey area (Figure 6). This vegetation community is dominated by non-native annual grasses such as wild oat (*Avena fatua*), bromes (*Bromus* spp.), and rye grass (*Festuca perennis*), interspersed with ruderal forbs including longbeak filaree (*Erodium botrys*) and mustards.

Wetland Vegetation Communities

Non-Native Riparian (65000)
Non-native riparian consists of disturbed riparian areas dominated by non-native tree and shrub species, most commonly including blue gum eucalyptus (*Eucalyptus* spp.), giant reed (*Arundo donax*), and castor bean (*Ricinus communis*). Vegetative cover is generally dense, often exceeding 75 percent, and canopies formed by these invasive species typically exclude native riparian vegetation. This community occurs along altered drainages, flood control channels, and disturbed riparian corridors and provides limited habitat value compared to native riparian woodland or scrub (Oberbauer et al. 2008).

Non-native riparian occurs completely on the project site and comprises approximately 0.14 acre that is confined to a disturbed drainage corridor in the vernal pool preserve in the northwestern portion of the survey area (Figure 6). This community is dominated by non-native grasses in the understory and contains sparse native and non-native riparian trees, including Goodding's black willow (*Salix gooddingii*) and hairy tamarix (*Tamarix ramosissima*).

Vernal Pool (44000)
As previously stated, the 2025 biological reconnaissance survey was conducted outside peak ponding conditions for vernal pools. Consequently, the boundaries of vernal pools were interpreted based on observable geomorphic characteristics, soil indicators, and vegetative assemblages indicative of vernal pool hydrology and may not fully reflect the maximum extent, depth, or precise configuration of ponding that may occur during wetter periods. Therefore, the mapped vernal pool features should be considered approximate and may differ from actual vernal pool dimensions and locations under peak hydrologic conditions.

Vernal pools are seasonally inundated wetlands that form in shallow depressions underlain by heavy clay or hardpan soils near the surface that restrict the downward percolation of water. Vernal pools support a distinct biological community adapted to extreme fluctuations in hydrologic conditions, ranging from prolonged inundation to complete desiccation. In the County, depressions in the landscape fill with rainwater and runoff from adjacent areas during the winter and may remain inundated for about 2 weeks after significant rain events. In swale systems, vernal pools usually retain water for at

least 2 weeks after surface flows cease, until spring or early summer, and may dry more than once during the wet season. Vernal pools can be differentiated from other temporary wetlands by the following criteria (Oberbauer et al. 2008):

> The basin is at least partially vegetated during the normal growing season or is unvegetated due to heavy clay or hardpan soils that do not support plant growth; and
>
> The basin contains at least one vernal pool indicator species (e.g., woolly-marbles [*Psilocarphus* spp.], toothed calicoflower [*Downingia cuspidata*], San Diego button-celery [*Eryngium aristulatum* var. *parishii*], or crustaceans – fairy shrimp [*Branchinecta* spp. and *Streptocephalus* spp.]).

Vernal pools occur completely on the project site and comprise approximately 1 acre that is confined to the vernal pool preserve in the northwestern portion of the survey area (Figure 6). Vernal pools on the project site support a combination of both native and non-native grasses and forbs. Dwarf woolly-marbles (*Psilocarphus brevissimus* var. *brevissimus*), a vernal pool indicator species, was observed within vernal pools during the 2025 biological reconnaissance survey.

Land Cover Types

Urban/Developed Land (12000)
Urban/developed land represents areas that have been constructed on or otherwise physically altered to the extent that native vegetation communities are not supported (Oberbauer et al. 2008). This land cover type generally consists of semi-permanent structures, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports various ornamental plants and landscaping.

Urban/developed land in the survey area comprises approximately 124.92 acres, primarily on the project site (Figure 6). The project site is almost entirely developed with academic buildings, parking lots, internal roadways, and associated pedestrian infrastructure. Of the total acreage, approximately 103.51 acres occurs directly on the project site. Urban/developed areas on the campus support limited vegetation, consisting primarily of ornamental plantings, landscaped areas, and scattered shade trees. Native vegetation is generally absent, and common ornamental species observed include tree of heaven (*Ailanthus altissima*), Chinese elm (*Ulmus parvifolia*), and various non-native shrubs and turf grasses.

Botanical Resources – Flora

Harris biologists identified 72 plant species in the survey area, 40 of which (56 percent) were non-native and/or invasive, and 32 (44 percent) were native.

The most frequently observed native species were California sagebrush, broom baccharis, and lemonade berry (*Rhus integrifolia*). Although the project would occur mostly on the developed portions of the campus, which is predominantly characterized by urban/developed land cover and ornamental landscaping, the vernal pool preserve in the northwestern portion of the site contains native vegetation. Although this preserve contains native plant species associated with scrub, riparian, and vernal pool habitats, it also supports a substantial cover of non-native plant species, particularly annual grasses. As a result, vegetation within the preserve consists of a mosaic of native and non-native species, with native cover primarily represented by established shrub species and non-native cover dominated by annual grasses.

Outside the vernal pool preserve, the project site is dominated by developed infrastructure, which supports largely ornamental plantings and non-native vegetation. Landscaping throughout the campus includes a mixture of non-native trees, shrubs, and turf. Non-native plant species account for most of the plant cover across the project site, and common non-native species observed include ripgut brome

(*Bromus diandrus*), wild oat, and mustard, which are well established in disturbed soils. Within the vernal pool preserve, these non-native grasses intermingle with native vernal pool vegetation, reducing habitat quality and species diversity.

The California Invasive Plant Council has identified many of the non-native species present on the project site as invasive with varying levels of ecological threat. Species such as mustards and ripgut brome (*Bromus diandrus*) are rated moderate to high in their potential to alter habitats and displace native vegetation (Cal-IPC 2026). The dominance of non-native species, combined with the intensity of surrounding urban development and landscaping, limits the overall value of the site's botanical resources, with native vegetation largely confined to the vernal pool preserve.

Attachment 3, Plant Species Observed, provides a list of the plant species observed during the biological reconnaissance survey.

Zoological Resources – Fauna

Harris biologists identified 26 wildlife species—one bee species, 23 species of birds, and two mammal species—during the biological reconnaissance survey. All species identified during the survey except Eurasian collared-dove (*Streptopelia decaocto*) are common, native species, and none are sensitive. Most of these species are likely to be residents on the survey area and in the surrounding area. Common species observed during the survey include black phoebe (*Sayornis nigricans*), mourning dove (*Zenaida macroura*), Cassin's kingbird (*Tyrannus vociferans*), Anna's hummingbird (*Calypte anna*), and house finch (*Haemorhous mexicanus*). Attachment 4, Wildlife Species Observed, provides a list of the wildlife species observed during the biological reconnaissance survey.

The survey area does not present as a biologically diverse setting with a wide array of native plant species or intact vegetation communities. The only portion of the project site that supports native vegetation communities is the vernal pool preserve in the northwestern corner of the campus. This preserve contains native vegetation intermixed with a substantial component of non-native annual grasses and forbs, resulting in a mosaic of vegetation cover. In contrast, the remainder of the project site is fully developed and landscaped with ornamental vegetation that provides only limited habitat value, generally supporting urban-adapted wildlife species.

Although no aquatic-dependent wildlife species (e.g., amphibians, aquatic reptiles, or fish) were observed during field surveys, the vernal pool preserve retains the potential to support vernal pool-associated wildlife species during periods of inundation. These seasonal pools can provide temporary habitat for branchiopods, amphibians, and invertebrates, which are adapted to ephemeral hydrologic conditions. However, outside the preserve, habitat conditions are highly constrained by extensive urban development, ornamental landscaping, and non-native plant dominance, which limit opportunities for foraging, nesting, and refugia by native species.

Rare, Threatened, Endangered, Endemic, and/or Sensitive Species

Sensitive species are those recognized by federal, state, or local agencies as being potentially vulnerable to impacts because of rarity, local or regional reductions in population numbers, isolation/restricted genetic flow, or other factors. Sensitive plants include those listed as threatened or endangered, proposed for listing, or candidates for listing under FESA by the USFWS (USFWS 2026c) and CESA by the CDFW (CDFW 2026c); those considered species of special concern by the CDFW (CDFW 2026d); those species included in the California Rare Plant Rank (CRPR) inventory maintained by the CNPS; and those listed as covered by the City's MSCP SAP (City of San Diego 1997). Sensitive wildlife species include those listed as threatened or endangered, proposed for listing, or candidates for listing under the FESA by the

USFWS (USFWS 2026c) and CESA by the CDFW (CDFW 2026c); and those considered species of special concern by the CDFW (CDFW 2026d).

As described in the Methods and Survey Limitations section, distributions of historically sensitive species observations reported by the California Natural Diversity Database (within a 1-mile radius of the project site), CNPS Inventory of Rare and Endangered Plants (nine quadrangle search), and Information for Planning and Consultation (IPaC) were reviewed (Figure 7, Historical Species with Potential to Occur). For this biological resources assessment, species that either are known to occur or have the potential to occur within 1 mile of the project site are addressed in this section. A list of sensitive plant and wildlife species observed or with the potential to occur on the project site is provided in Table 2, Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site. Listing status, habitat requirements, and observation or potential for occurrence information are provided.

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Plants				
Acanthomintha ilicifolia	San Diego thornmint	FT/SE/1B.1/MSCP	Annual herb. Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools at elevations between 35 and 3,150 feet AMSL. Blooms Apr–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and largely dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Adolphia californica	California adolphia	None/None/2B.1/None	Perennial deciduous shrub. Occurs in chaparral, coastal scrub, and valley and foothill grassland at elevations between 35 and 2,430 feet AMSL. Blooms Dec–May.	*Low.* Suitable coastal scrub and grassland habitat are present within the survey area; however, habitat is limited and surrounded by development. Additionally, this species, if present, would have been visible at the time of the survey. Historical locations exist within 1 mile north of the survey area but not within (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/MSCP	Perennial rhizomatous herb. Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools in sandy, loamy, clay and alkaline soils at elevations between 65 and 1,360 feet AMSL. Blooms Apr–Oct.	*Low.* Limited suitable habitat for this species is present within the vernal pool preserve. Although small areas of seasonally moist soils and adjacent disturbed grassland occur, the site has been previously disturbed, is partially dominated by invasive species, and lacks the alkaline, clay-rich soils and landscape connectivity typically associated with persistent populations of this species. The preserve is small and surrounded by urban development, further reducing the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1/MSCP	Perennial evergreen shrub. Occurs in sandy, maritime chaparral at elevations between and 1,200 feet AMSL. Blooms Jun–Apr.	*Not Expected.* Suitable maritime chaparral habitat does not occur within the survey area. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Artemisia palmeri	San Diego sagewort	None/None/4.2/None	Perennial deciduous shrub. Occurs in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland at elevations between 15 and 3,000 feet AMSL. Blooms (Feb)May–Sep.	*Low*. A small, disturbed riparian channel and low-to-medium-quality coastal sage scrub are present within the survey area; however, habitat quality and extent are limited and unlikely to support this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Asplenium vespertinum	Western spleenwort	None/None/4.2/None	Perennial rhizomatous herb. Occurs in chaparral, cismontane woodland, and coastal scrub at elevations between 590 and 3,280 feet AMSL. Blooms Feb–Jun.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Astragalus tener var. *titi*	Coastal dunes milk-vetch	FE/SE/1B.1/MSCP	Annual herb. Occurs in sandy coastal bluff scrub, coastal dunes, and mesic coastal prairies at elevations between 5 and 165 feet AMSL. Blooms Mar–May.	*Not Expected*. Suitable coastal habitats for this species do not exist within the survey area. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/None	Perennial herb. Occurs in coastal bluff scrub, coastal dunes, coastal scrub, and valley and foothill grassland at elevations between 10 and 1,510 feet AMSL. Blooms Mar–Oct.	*Not Expected*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Additionally, this species, if present, would have been visible at the time of the survey. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1/MSCP	Perennial deciduous shrub. Occurs in chaparral (maritime) and cismontane woodland, often on sandstone soils, at elevations between 195 and 2,360 feet AMSL. Blooms Aug–Nov.	*Not Expected*. Suitable maritime chaparral and woodland habitats are not present within the survey area. Additionally, this species, if present, would have been visible at the time of the survey. Historical locations exist within 1 mile north of the survey area but not within (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Bahiopsis laciniata	San Diego County viguiera	None/None/4.3/None	Perennial shrub. Occurs in chaparral and coastal scrub at elevations between 195 and 2,460 feet AMSL. Blooms Feb–Jun(Aug).	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Berberis nevinii	Nevin's barberry	FE/SE/1B.1/MSCP	Perennial evergreen shrub. Occurs in gravelly and sandy soils within chaparral, cismontane woodland, coastal scrub, and riparian scrub at elevations between 230 and 2,705 feet AMSL. Blooms (Feb)Mar–Jun.	*Not Expected.* Suitable sandy and gravelly soils and habitats for this species are not present within the survey area. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/None	Perennial bulbiferous herb. Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools at elevations between 165 and 1,525 feet AMSL. Blooms Apr–May.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Brodiaea filifolia	Thread-leaved brodiaea	FT/SE/1B.1/MSCP	Perennial bulbiferous herb. Occurs in chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools at elevations between 80 and 3,675 feet AMSL. Blooms Mar–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/MSCP	Perennial bulbiferous herb. Occurs in chaparral, cismontane woodland, closed-cone coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools at elevations between 100 and 5,550 feet AMSL. Blooms May–Jul.	*Moderate.* Suitable grassland and vernal pool habitats are present within the survey area; however, the suitable habitat within the survey area has been previously disturbed. Additionally, this species, if present, may not have been visible at the time of the survey. Historical locations exist within 1 mile south and west of the survey area but not within (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Ceanothus verrucosus	Wart-stemmed ceanothus	None/None/2B.2/MSCP	Perennial evergreen shrub. Occurs in chaparral and coastal scrub at elevations between 5 and 1,245 feet AMSL. Blooms Dec–May.	*Not Expected*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Additionally, this species, if present, would have been visible at the time of the survey. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1/None	Annual herb. Occurs in sandy openings within closed-cone coniferous forest and maritime chaparral and coastal scrub at elevations between 10 and 410 feet AMSL. Blooms Mar–May.	*Not Expected.* Suitable sandy soils are not present within the survey area. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Chorizanthe polygonoides var. *longispina*	Long-spined spineflower	None/None/1B.2/None	Annual herb. Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools at elevations between 100 and 5,020 feet AMSL. Blooms Apr–Jul.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Convolvulus simulans	Small-flowered morning-glory	None/None/4.2/None	Annual herb. Occurs in chaparral (openings), coastal scrub and valley and foothill grassland at elevations between 100 and 2,430 feet AMSL. Blooms Mar–Jul.	*Moderate*. Non-native grassland and low- to moderate-quality coastal sage scrub habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Dichondra occidentalis	Western dichondra	None/None/4.2/None	Perennial rhizomatous herb. Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations between 165 and 1,640 feet AMSL. Blooms (Jan)Mar–Jul.	*Low*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Dudleya variegata	Variegated dudleya	None/None/1B.2/MSCP	Perennial herb. Occurs in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools at elevations between 10 and 1,905 feet AMSL. Blooms Apr–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Eriodictyon sessilifolium	Sessile-leaved yerba santa	None/None/2B.1/None	Perennial shrub. Occurs in coastal scrub at elevations between 560 and 560 feet AMSL. Blooms Jul.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/MSCP	Annual/perennial herb. Occurs in coastal scrub, valley and foothill grassland, and vernal pools at elevations between 65 and 2,035 feet AMSL. Blooms Apr–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1/MSCP	Perennial stem. Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools at elevations between 10 and 1,475 feet AMSL. Blooms May–Jun.	*Moderate*. Suitable coastal sage scrub and vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1/None	Ephemeral liverwort. Occurs in coastal scrub (mesic) and vernal pools at elevations between 35 and 1,970 feet AMSL. Blooms varies.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/None	Annual herb. Occurs in chaparral, coastal scrub, and valley and foothill grassland at elevations between 65 and 3,135 feet AMSL. Blooms Mar–May.	*Low*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Holocarpha virgata ssp. *elongata*	Graceful tarplant	None/None/4.2/None	Annual herb. Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland at elevations between 195 and 3,610 feet AMSL. Blooms May–Nov.	*Low*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Isocoma menziesii var. *decumbens*	Decumbent goldenbush	None/None/1B.2/None	Perennial shrub. Occurs in chaparral and coastal scrub (often disturbed areas, sandy) at elevations between 35 and 820 feet AMSL. Blooms Apr–Nov.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/None	Perennial herb. Occurs in marshes, swamps, and playas at elevations between zero and 1,640 feet AMSL. Blooms Apr–Oct.	*Not Expected.* Suitable marsh, swamp, and playa habitats are not present within the survey area. Additionally, this species, if present, would have been visible at the time of the survey. Historical locations exist within 1 mile east of the survey area but not within (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Juncus acutus ssp. *leopoldii*	Southwestern spiny rush	None/None/4.2/None	Perennial rhizomatous herb. Occurs in coastal dunes (mesic), coastal scrub, marshes and swamps (coastal salt), and meadows and seeps (alkaline seeps) at elevations between 10 and 2,955 feet AMSL. Blooms (Mar)May–Jun.	*Not Expected*. A small, disturbed riparian channel is present within the survey area; however, habitat quality and extent are limited and unlikely to support this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/None	Annual herb. Occurs in chaparral and coastal scrub at elevations between 5 and 2,905 feet AMSL. Blooms Jan–Jul.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Monardella viminea	Willowy monardella	FE/SE/1B.1/MSCP	Perennial herb. Occurs in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland at elevations between 165 and 740 feet AMSL. Blooms Jun–Aug.	*Not Expected*. Suitable wash habitats are not present within the survey area. Historical locations exist within 1 mile south of the survey area but not within (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Myosurus minimus ssp. *apus*	Little mousetail	None/None/3.1/None	Annual herb. Occurs in valley and foothill grassland and vernal pools (alkaline) at elevations between 65 and 2,100 feet AMSL. Blooms Mar–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Navarretia fossalis	Spreading navarretia	FT/None/1B.1/MSCP	Annual herb. Occurs in chenopod scrub, marshes and swamps (shallow freshwater), playas, and vernal pools at elevations between 100 and 2,150 feet AMSL. Blooms Apr–Jun.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Ophioglossum californicum	California adder's-tongue	None/None/4.2/None	Perennial rhizomatous herb. Occurs in chaparral, valley and foothill grassland, and vernal pools (margins) at elevations between 195 and 1,725 feet AMSL. Blooms Jan–Jun(Dec).	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/MSCP	Annual herb. Occurs in vernal pools at elevations between 50 and 2,165 feet AMSL. Blooms Apr–Aug.	*Moderate.* Suitable vernal pool habitat is present within the Miramar College Vernal Pool Preserve; however, the vernal pools are restored, generally shallow, and partially dominated by weedy and invasive species. The preserve is relatively small, has experienced past disturbance, and is surrounded by urban development with limited connectivity to other native vernal pool complexes, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Pentachaeta aurea ssp. *aurea*	Golden-rayed pentachaeta	None/None/4.2/None	Annual herb. Occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, and valley and foothill grassland at elevations between 260 and 6,070 feet AMSL. Blooms Mar–Jul.	*Low*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/MSCP	Annual herb. Occurs in vernal pools at elevations between 295 and 655 feet AMSL. Blooms Mar–Jul.	*Moderate*. Suitable vernal pool habitat is present within the survey area; however, the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species. The site is surrounded by urban development and lacks connectivity to other native habitats, which reduces the likelihood of occurrence. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/None	Perennial evergreen shrub. Occurs in chaparral, closed-cone coniferous forest, and coastal scrub at elevations between 50 and 1,310 feet AMSL. Blooms Feb–Apr(May–Aug).	*Not Expected*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. If present, this species would have been detected during the field survey. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Quercus engelmannii	Engelmann oak	None/None/4.2/None	Perennial deciduous tree. Occurs in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland at elevations between 165 and 4,265 feet AMSL. Blooms Mar–Jun.	*Not Expected*. Non-native grassland habitat is present within the survey area; however, the habitat is disturbed and dominated by invasive species, which limits suitability for this species. If present, this species would have been detected during the field survey. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Selaginella cinerascens	Ashy spike-moss	None/None/4.1/None	Perennial rhizomatous herb. Occurs in chaparral and coastal scrub at elevations between 65 and 2,100 feet AMSL. Blooms varies.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Senecio aphanactis	Chaparral ragwort	None/None/1B.2/None	Annual herb. Occurs in chaparral, cismontane woodland, and coastal scrub at elevations between 50 and 2,625 feet AMSL. Blooms Jan–Apr(May).	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).
Sphaerocarpos drewiae	Bottle liverwort	None/None/1B.1/None	Ephemeral liverwort. Occurs in chaparral and coastal scrub at elevations between 295 and 1,970 feet AMSL.	*Low*. Low- to medium-quality coastal sage scrub is present within the survey area; however, disturbance, invasive species, and surrounding urban development reduce habitat suitability. Historical locations do not exist within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; CNPS 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Wildlife				
Invertebrates				
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/—/MSCP	Generally restricted to shallow freshwater vernal pools and includes swales, tire ruts, and other depressions that are filled seasonally by rainfall.	*High*. Suitable shallow freshwater vernal pool habitats are present in the survey area, and this species has been historically observed on the project site (Figure 7). Additional historical locations exist within 1 mile north and southeast of the survey area (Figure 7; CDFW 2026a, 2026b; USFWS 2026b).
Danaus plexippus plexippus pop. 1	Monarch butterfly (California overwintering population)	FC/None/—/None	Occurs in various habitats where patches of milkweed (*Asclepias* sp.), the monarch caterpillar host plant, are present. Overwinter in groves of eucalyptus, cypress, and pine along the California coast and high-elevation forests in Mexico.	*Moderate Foraging, Low Overwintering.* Monarch butterflies may forage within the project site where nectar sources occur; however, suitable overwintering habitat is not present. Although a few eucalyptus trees occur in the survey area, they are sparse and lack the dense canopy structure, wind protection, and stable microclimatic conditions required for overwintering clusters. As a result, the species may occur transiently while foraging but is not expected to overwinter within the project limits. Although native and ornamental nectar sources are present within the survey area, no milkweed patches were observed in the survey area during the 2025 biological reconnaissance survey. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b). The closest proximity overwintering population is documented approximately 7 miles west of the survey area (Xerces Society 2026).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/—/None	Occurs in chaparral and coastal sage shrublands. Requires dot-seed plantain (*Plantago erecta*) or purple owl's clover (*Castilleja exserta*) as a host plant.	*Not Expected.* Suitable coastal sage shrubland habitats are present but extremely limited within the survey area. Suitable host plant species were not detected within the survey area. Furthermore, the survey area is surrounded by development. Historical locations exist within 1 mile west of the project site from the 1960s, but the location is not accurate (Figure 7; CDFW 2026a, 2026b; USFWS 2026b).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/—/MSCP	Generally restricted to shallow freshwater vernal pools and ephemeral wetlands, including seasonal swales, tire ruts, road depressions, and restored or artificial basins. Prefers micro-habitats where water persists for at least 2–3 months and where turbidity, conductivity, and temperature conditions support maturation, reproduction, and cyst dormancy.	*Low.* Suitable vernal pool habitats are present; however vernal pools within the survey area do not appear to be deep enough (at least 30 centimeters) to support this species. Historical locations exist within 1 mile south of the survey area but not within (Figure 7; CDFW 2026a, 2026b; USFWS 2026b).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Amphibians				
Spea hammondii	Western spadefoot	FC/SSC/—/None	Inhabits grasslands, open scrub, vernal pools, and occasionally chaparral. Prefers micro-habitats with friable, sandy, or loamy soils suitable for burrowing and is typically found in areas with seasonal aquatic features necessary for breeding.	*Moderate.* Suitable grassland, coastal scrub and vernal pool habitats containing aquatic features and friable, sandy, or loamy soils are present in or surrounding the survey area. Historical locations exist within 1 mile southeast of the survey area but not within (Figure 7; CDFW 2026a, 2026b; USFWS 2026b).
Reptiles				
Actinemys pallida	Southwestern pond turtle	FC/SSC/—/MSCP	Occurs in various freshwater aquatic habitats, including streams, rivers, ponds, lakes, marshes, and reservoirs, generally from low-to-moderate elevations. Prefers slow-moving or still waters with abundant basking sites such as logs, rocks, or banks, and adjacent upland areas with suitable cover for nesting and overwintering.	*Not Expected.* Suitable large body freshwater habitats are not present in or surrounding the survey area. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).
Phrynosoma blainvillii	Blainville's coast horned lizard	None/SSC/—/MSCP	Inhabits coastal scrub, chaparral, grassland, and oak woodland habitats. Prefers micro-habitats of open, sunny areas with loose, sandy, or friable soils for burrowing and an abundant supply of native ants for foraging.	*Not Expected.* Suitable coastal scrub, chaparral, grassland, and oak woodland habitats are not present in or surrounding the survey area. Historical locations exist within 1 mile south of the survey area but not within (Figure 7; CDFW 2026a, 2026b).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Birds				
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/—/MSCP	Occurs in coastal sage scrub and open chaparral habitats on arid hillsides, slopes, and mesas, typically from near sea level up to approximately 3,000 feet. Prefers areas with a mix of open ground, rock outcrops, and shrub cover to support its ground-foraging and territorial behaviors.	*Not Expected Foraging or Nesting.* Suitable habitats containing slopes and rock outcrops are not present in or surrounding the survey area. Historical locations exist within 1 mile east of the survey area but not within (Figure 7; CDFW 2026a, 2026b).
Anarhynchus nivosus nivosus	Western snowy plover	FT/SSC/—/MSCP	Occurs in coastal habitats including sandy beaches, dune systems, dry salt flats, and sparsely vegetated shorelines, generally from sea level to low elevations. Prefers open areas with minimal vegetation and human disturbance for nesting, and forages along beaches, tidal flats, and nearby coastal margins.	*Not Expected Foraging or Nesting.* Suitable coastal habitats are not present in or surrounding the survey area. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).
Ixobrychus exilis	Least bittern	None/SSC/—/None	Occurs in freshwater and brackish marshes with dense emergent vegetation such as cattails, bulrushes, and reeds, typically from sea level to low elevations. Prefers areas with a mix of open water and vegetative cover to support foraging, nesting, and concealment.	*Not Expected Foraging or Nesting.* Suitable freshwater and brackish marsh habitats are not present in or surrounding the survey area. Historical locations exist within 1 mile east of the survey area but not within (Figure 7; CDFW 2026a, 2026b).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC/—/MSCP	Found in dense coastal sage scrub, occasionally baccharis scrub, and chaparral in Southern California to Baja Mexico below 2,500 feet AMSL.	*Not Expected Foraging or Nesting.* Suitable dense coastal sage scrub or chaparral habitats are not present in the survey area. Historical locations exist within 1 mile north and east of the survey area but not within (Figure 7; CDFW 2026a, 2026b; USFWS 2026b).
Empidonax traillii extimus	Southwestern willow flycatcher	FE/SE/—/MSCP	Occurs in dense riparian habitats along rivers, streams, and floodplains, generally at low-to-moderate elevations. Prefers areas with a well-developed shrub layer dominated by willow, mule fat, or similar riparian vegetation, typically adjacent to surface water or moist soils that support abundant insect prey and provide suitable nesting cover.	*Not Expected Foraging or Nesting.* Although a small channel containing riparian plants exists within the vernal pool preserve, the channel is disturbed and does not provide suitable foraging or nesting habitat for this species. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).
Pandion haliaetus	Osprey	None/WL/—/None	Occurs near rivers, lakes, reservoirs, estuaries, and coastal habitats, typically from sea level to moderate elevations. Prefers areas with open water that support abundant fish populations and nearby elevated structures, such as snags, cliffs, or human-made platforms, for nesting.	*Not Expected Foraging or Nesting.* Suitable rivers, lakes, reservoirs, estuaries, and coastal habitats are not present in or surrounding the survey area. Historical locations exist within 1 mile east of the survey area but not within (Figure 7; CDFW 2026a, 2026b).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Rallus obsoletus levipes	Light-footed Ridgway's rail	FE/SE/—/MSCP	Occurs primarily in coastal and estuarine wetlands, including tidal salt marshes, brackish marshes, and freshwater marshes with dense emergent vegetation, generally from sea level to low elevations. Prefers areas dominated by cordgrass, bulrush, cattail, or pickleweed that provide cover for nesting and foraging, typically adjacent to tidal channels or shallow open water.	*Not Expected Foraging or Nesting.* Suitable estuarine and coastal habitats are not present in or surrounding the survey area. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).
Sternula antillarum browni	California least tern	FE/SE/—/None	Occurs in coastal and inland aquatic habitats, including beaches, lagoons, estuaries, river mouths, and sparsely vegetated shorelines, generally from sea level to low elevations. Nesting occurs on flat, open substrates, such as sand or gravel with little to no vegetation, while foraging takes place in nearby open waters that support abundant small fish.	*Not Expected Foraging or Nesting.* Suitable aquatic and coastal habitats are not present in or surrounding the survey area. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).

Table 2. Sensitive Plant and Wildlife Species with the Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Vireo bellii pusillus	Least Bell's vireo	FE/SE/—/MSCP	Occurs in various habitats but is most often associated with riparian habitat, often with willow species in Southern California below 2,000 feet in elevation. Requires dense understory shrub cover for nest concealment, with an overstory dominated by willows.	*Not Expected Foraging or Nesting.* Although a small channel containing riparian plants exists within the vernal pool preserve, the channel is disturbed and does not provide suitable foraging or nesting habitat for this species. Historical locations do not exist within 1 mile east of the survey area (Figure 7; CDFW 2026a, 2026b).

Notes: — = no status; AMSL = above mean sea level; CRPR = California Rare Plant Rank; MSCP = San Diego Multiple Species Conservation Program listed; None = No status indicated for species

Federal Status

FC = Federal candidate

FE = Federally listed as endangered

FT = Federally listed as threatened

State Status

SE = State listed as endangered

SSC = State listed as special species of concern

WL = Watch list

CRPR

1B = Rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.

2B = Rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.

4 = Limited distribution or infrequent throughout a broader area in California. These species are eligible for state listing.

.1 = Seriously threatened in California (over 80 percent of occurrences threatened; high degree and immediacy of threat).

.2 = Moderately threatened in California (20–80 percent occurrences threatened; moderate degree and immediacy of threat).

.3 = Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Sensitive Plant Species

No sensitive plant species were observed in the survey area during the biological reconnaissance survey. No plant species were determined to have high potential to occur in the survey area. Fifteen plant species were determined to have moderate potential to occur within the survey area. It is important to note that the survey was not conducted during the blooming period for some species known to occur in the region; therefore, species potentially occurring in the survey area may not have been observed.

The restored and managed vernal pool systems within the project site's vernal pool preserve may incorporate native and special-status plant species through active restoration, enhancement, or management actions independent of natural colonization. Accordingly, while the analysis presented in this letter report evaluates the potential for natural occurrence of sensitive plant species based on existing habitat conditions, regional distribution, and site context, it does not assess the potential for intentional introduction or future establishment of sensitive plant species associated with ongoing or future restoration and management activities within the vernal pool preserve.

Sensitive Plant Species Not Observed but with Potential to Occur on the Project Site

San Diego Thornmint (*Acanthomintha ilicifolia*)

San Diego thornmint is a federally threatened, state-endangered species and holds a CRPR of 1B.1. It is an annual herb in the mint family (Lamiaceae), characterized by sharply spined, holly-like bracts and small white-to-pale lavender flowers. According to CNPS, the species occurs in coastal sage scrub, chaparral, grassland, and vernal pool margins, typically on heavy, clay-rich or clay-loam soils that experience seasonal saturation and cracking during drying periods. The species is endemic to coastal Southern California, with most known occurrences in San Diego County, and generally occurs at elevations ranging from approximately 35 to 3,150 feet AMSL. Germination and growth occur during the winter following seasonal rainfall, with flowering typically occurring from April through June. Primary threats include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and their margins provide potential habitat for San Diego thornmint. Although the preserve consists of restored vernal pools that are generally shallow and partially dominated by invasive and weedy species, suitable microhabitat conditions may still be present. As a result, San Diego thornmint is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Designated critical habitat for San Diego thornmint does not occur within the survey area, and the nearest designated critical habitat is approximately 2.4 miles northeast of the project site (Figure 8, Critical Habitat; USFWS 2026b). San Diego thornmint has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve within the northwestern portion of the project site provides potential seasonal habitat for this species. San Diego thornmint was not observed during the biological reconnaissance survey.

San Diego Goldenstar (*Bloomeria clevelandii*)

San Diego goldenstar is a CRPR 1B.1 species. San Diego goldenstar is a perennial geophyte in the asparagus family (Asparagaceae), arising from a corm and characterized by narrow, grass-like basal leaves and bright yellow, star-shaped flowers borne on slender, leafless stems. The species occurs in

grasslands, coastal sage scrub, chaparral openings, and vernal pool margins, typically on heavy or clay-influenced soils that retain moisture during the winter and spring. San Diego goldenstar is endemic to coastal Southern California, with its distribution largely centered in San Diego County, and generally occurs at elevations ranging from approximately 165 to 1,525 feet AMSL. Vegetative growth occurs during the winter and spring following seasonal rainfall, with flowering occurring from April through May. Primary threats to this species include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and their margins provide potential habitat for San Diego goldenstar. Although the preserve consists of restored vernal pools that are generally shallow and partially dominated by invasive and weedy species, suitable microhabitat conditions may still be present. As a result, San Diego goldenstar is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Designated critical habitat for the San Diego goldenstar does not occur within the survey area, and the nearest designated critical habitat is outside the project site. San Diego goldenstar has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve within the northwestern portion of the project site provides potential seasonal habitat for this species. San Diego goldenstar was not observed during the biological reconnaissance survey.

Thread-Leaved Brodiaea (*Brodiaea filifolia*)

Thread-leaved brodiaea is a federally threatened, state-endangered species and is designated as a CRPR 1B.1 species. Thread-leaved brodiaea is a perennial geophyte in the Themidaceae family that arises from an underground corm and is characterized by very narrow, thread-like basal leaves and showy purple to lavender flowers on a slender, leafless flowering stalk. The species occurs in grasslands, coastal sage scrub, chaparral openings, cismontane woodland margins, playas, and vernal pools, and is typically associated with heavy, clay-rich or seasonally moist soils that retain moisture during the winter and spring. Thread-leaved brodiaea is endemic to coastal Southern California, with its distribution largely centered in San Diego County, and generally occurs at elevations ranging from approximately 80 to 3,675 feet AMSL. Vegetative growth occurs during the winter and spring following seasonal rainfall, with flowering typically occurring from March through June. Primary threats to this species include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and their margins provide potential habitat for thread-leaved brodiaea. Although the preserve consists of restored vernal pools that are generally shallow and partially dominated by invasive and weedy species, suitable microhabitat conditions may still be present. As a result, thread-leaved brodiaea is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Thread-leaved brodiaea has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve within the northwestern portion of the project site provides potential seasonal habitat for this species. Thread-leaved brodiaea was not observed during the biological reconnaissance survey.

Orcutt's Brodiaea (*Brodiaea orcuttii*)
Orcutt's brodiaea is designated as a CRPR 1B.1 species. It is a perennial bulbiferous herb in the Themidaceae family that arises from an underground corm and is characterized by narrow basal leaves and showy purple to lavender flowers borne on an erect flowering stalk. The species occurs in chaparral, cismontane woodland, closed-cone coniferous forest, meadows and seeps, valley and foothill grassland, and vernal pools, and is typically associated with seasonally moist soils. Orcutt's brodiaea is native to coastal Southern California and northwestern Baja California and generally occurs at elevations ranging from approximately 100 to 5,550 feet AMSL. Vegetative growth occurs during the winter and spring following seasonal rainfall, with flowering typically occurring from May through July. Primary threats to this species include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and adjacent grassland habitat provide potential habitat for Orcutt's brodiaea. Although the suitable habitat within the survey area has been previously disturbed, suitable microhabitat conditions may still be present; however, this species, if present, may not have been visible at the time of the survey. As a result, Orcutt's brodiaea is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Orcutt's brodiaea has been historically approximately 0.8 mile west of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve within the northwestern portion of the project site provides potential seasonal habitat for this species. Orcutt's brodiaea was not observed during the biological reconnaissance survey.

Long-Spined Spineflower (*Chorizanthe polygonoides* var. *longispina*)
Long-spined spineflower is designated as a CRPR 1B.2 species. Long-spined spineflower is an annual herb in the buckwheat family (Polygonaceae) characterized by low-growing, spreading stems and distinctive spiny involucres surrounding small flowers. The species occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, and vernal pools, and is typically associated with open, sparsely vegetated microsites on seasonally influenced soils. Long-spined spineflower is native to Southern California and northwestern Baja California and generally occurs at elevations ranging from approximately 100 to 5,020 feet AMSL. Flowering typically occurs from April through July. Primary threats to this species include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and surrounding upland margins provide potential habitat for long-spined spineflower. Although the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species, suitable microhabitat conditions may still be present. As a result, long-spined spineflower is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Long-spined spineflower has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve within the northwestern portion of the project site provides potential seasonal habitat for this species. Long-spined spineflower was not observed during the biological reconnaissance survey.

Small-Flowered Morning-Glory (*Convolvulus simulans*)
Small-flowered morning-glory is designated as a CRPR 4.2 species. Small-flowered morning-glory is an annual herb in the morning-glory family (Convolvulaceae) characterized by slender twining or trailing stems and small funnel-shaped flowers. The species occurs in chaparral openings, coastal scrub, and valley and foothill grassland, and is typically associated with open, disturbed, or naturally sparse microsites on upland soils. Small-flowered morning-glory is native to Southern California and northwestern Baja California and generally occurs at elevations ranging from approximately 100 to 2,430 feet AMSL. Flowering typically occurs from March through July. Primary threats to this species include development, habitat fragmentation, and invasive plant species.

Non-native grassland and low-to-moderate-quality coastal sage scrub habitat occur in the survey area. However, the habitat is disturbed and dominated by invasive species, limiting its suitability for this species. As a result, small-flowered morning-glory is considered to have moderate potential to occur within the survey area. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Small-flowered morning-glory has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

Small-flowered morning-glory was not observed during the biological reconnaissance survey.

Variegated Dudleya (*Dudleya variegata*)
Variegated dudleya is designated as a CRPR 1B.2 species. Variegated dudleya is a perennial herb in the stonecrop family (Crassulaceae) characterized by a basal rosette of fleshy leaves and an erect flowering stalk bearing yellow flowers. The species occurs in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools, and is typically associated with clay-influenced soils and seasonally moist microsites. Variegated dudleya is native to coastal Southern California and northwestern Baja California and generally occurs at elevations ranging from approximately 10 to 1,905 feet AMSL. Flowering typically occurs from April through June. Primary threats include urban development, habitat fragmentation, invasive plant species, altered hydrology, and soil disturbance.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools and their margins provide potential habitat for variegated dudleya. Although the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species, suitable microhabitat conditions may still be present. As a result, variegated dudleya is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Variegated dudleya has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

Variegated dudleya was not observed during the biological reconnaissance survey.

San Diego Button-Celery (*Eryngium aristulatum* var. *parishii*)
San Diego button-celery is a federally endangered, state-endangered species and is designated as a CRPR 1B.1 species. San Diego button-celery is a perennial herb in the carrot family (Apiaceae) characterized by spiny-margined basal leaves and compact, rounded flower heads borne on erect stems. The species is strongly associated with vernal pools, vernal pool margins, and other seasonally inundated depressions on clay-rich soils. San Diego button-celery is endemic to coastal Southern California, with its distribution largely centered in San Diego County, and generally occurs at elevations ranging from approximately 65 to 2,035 feet AMSL. Vegetative growth occurs during the winter and spring following seasonal rainfall, with flowering typically occurring from April through June. Primary threats include habitat loss, altered hydrology, invasive plant species, and urban development.

Approximately 1 acre of vernal pools across 14 individual pools occurs in the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools provide potential habitat for San Diego button-celery. Although the preserve consists of restored vernal pools that are generally shallow and partially dominated by invasive and weedy species, suitable microhabitat conditions may still be present. As a result, San Diego button-celery is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. San Diego button-celery has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

San Diego button-celery was not observed during the biological reconnaissance survey.

San Diego Barrel Cactus (*Ferocactus viridescens*)
San Diego barrel cactus is designated as a CRPR 2B.1 species. San Diego barrel cactus is a long-lived perennial succulent in the cactus family (Cactaceae) characterized by a solitary, barrel-shaped stem with prominent ribs, stout spines, and yellow to red-tinged flowers produced near the crown. The species occurs in coastal sage scrub, chaparral, and grassland habitats, typically on rocky, well-drained soils. San Diego barrel cactus is endemic to coastal Southern California and northwestern Baja California and generally occurs at elevations ranging from approximately 10 to 1,475 feet AMSL. Flowering typically occurs from May through June. Primary threats include urban development, illegal collection, habitat fragmentation, and altered fire regimes.

Low-quality coastal sage scrub and disturbed upland habitats occur adjacent to the vernal pool preserve within the survey area. However, the absence of extensive rocky substrates limits habitat suitability. As a result, San Diego barrel cactus is considered to have moderate potential to occur within the survey area. Focused rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. San Diego barrel cactus has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

San Diego barrel cactus was not observed during the biological reconnaissance survey.

Campbell's Liverwort (*Geothallus tuberosus*)
Campbell's liverwort is a CRPR 1B.1 species. Campbell’s liverwort is a small, thalloid, non-vascular plant in the liverwort family (Geothallaceae) characterized by a flattened, ribbon-like thallus and subterranean tubers. The species is restricted to vernal pools and seasonally saturated clay soils that remain moist during the winter and spring. Campbell’s liverwort is endemic to coastal Southern California and generally occurs at elevations ranging from approximately 35 to 1,970 feet AMSL. Reproductive timing of this species varies. Primary threats include habitat loss, altered hydrology, trampling, and invasive plant species.

Approximately 1 acre of vernal pools occurs within the Miramar College Vernal Pool Preserve and provides potential habitat for this species. Although the pools are restored and partially dominated by invasive vegetation, suitable seasonal hydrologic conditions may still occur. As a result, Campbell’s liverwort is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level wet season surveys were not conducted as part of the 2025 biological reconnaissance effort. Campbell’s liverwort has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

Campbell’s liverwort was not observed during the biological reconnaissance survey.

Little Mousetail (*Myosurus minimus* ssp*. apus*)
Little mousetail is designated as a CRPR 3.1 species. Little mousetail is a small annual herb in the buttercup family (Ranunculaceae) characterized by narrow basal leaves and a distinctive, elongated receptacle resembling a mouse tail. The species occurs in vernal pools, playas, and seasonally moist depressions on clay-rich soils. Little mousetail is native to western North America and generally occurs at elevations ranging from approximately 65 to 2,100 feet AMSL. Flowering typically occurs from March through June. Primary threats include habitat loss, altered hydrology, and invasive species.

The vernal pool preserve in the survey area provides potential seasonal habitat for this species. Due to the disturbed condition of the pools, little mousetail is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Little mousetail has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

Little mousetail was not observed during the biological reconnaissance survey.

Spreading Navarretia (*Navarretia fossalis*)
Spreading navarretia is a federally threatened and is designated as a CRPR 1B.1 species. Spreading navarretia is an annual herb in the phlox family (Polemoniaceae) characterized by low, spreading growth and small white-to-pale blue flowers. The species is restricted to vernal pools and other seasonally inundated clay soils. Spreading navarretia is endemic to coastal Southern California and generally occurs at elevations ranging from approximately 100 to 2,150 feet AMSL. Flowering typically occurs from April through June. Primary threats include habitat loss, altered hydrology, invasive species, and urban development.

Approximately 1 acre of vernal pools occurs within the Miramar College Vernal Pool Preserve and provides potential habitat for this species. Although the pools are restored and partially weedy, suitable hydrologic conditions may occur seasonally. As a result, spreading navarretia is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. Spreading navarretia has not been historically documented within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

Spreading navarretia was not observed during the biological reconnaissance survey.

California Adder's-Tongue (*Ophioglossum californicum*)
California adder's-tongue is a CRPR 4.2 species. California adder's-tongue is a small perennial fern in the adder's-tongue family (Ophioglossaceae) characterized by a single, fleshy leaf and a short fertile spike. The species occurs in grasslands, vernal pool margins, and other seasonally moist habitats on clay or loamy soils. California adder's-tongue is endemic to western North America and generally occurs at elevations ranging from approximately 195 to 1,725 feet AMSL. Emergence and reproduction typically occur from January through June. Primary threats include habitat loss, altered hydrology, and invasive plant species.

Suitable seasonal habitat may occur within the vernal pool preserve and adjacent grassland areas. As a result, California adder's-tongue is considered to have moderate potential to occur within the survey area. Focused rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. This species has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

California adder's-tongue was not observed during the biological reconnaissance survey.

California Orcutt Grass (*Orcuttia californica*)

California Orcutt grass is a federally endangered, state-endangered, and is designated as a CRPR 1B.1 species. California Orcutt grass is an annual grass in the grass family (Poaceae) characterized by finely divided leaves and a growth form adapted to prolonged inundation. The species is restricted to vernal pools with long hydroperiods and clay-rich soils. California Orcutt grass is endemic to coastal Southern California and generally occurs at elevations ranging from approximately 50 to 2,165 feet AMSL. Germination occurs following pool inundation, with flowering typically occurring from April through August. Primary threats include habitat loss, altered hydrology, invasive species, and urban development.

The Miramar College Vernal Pool Preserve contains restored vernal pools that provide potential habitat for this species. Although the pools are generally shallow and partially dominated by invasive species, suitable hydrologic conditions may occur in wetter years. As a result, California Orcutt grass is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level wet season surveys were not conducted as part of the 2025 biological reconnaissance effort. This species has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

California Orcutt grass was not observed during the biological reconnaissance survey.

San Diego Mesa Mint (*Pogogyne abramsii*)

San Diego mesa mint is a federally endangered, state-endangered species and is designated as a CRPR 1B.1 species. San Diego mesa mint is an annual herb in the mint family (Lamiaceae) characterized by aromatic foliage and small purple flowers. The species occurs in vernal pools and is associated with seasonally inundated soils that support vernal pool hydrology. San Diego mesa mint is a narrow regional endemic centered in western San Diego County and generally occurs at elevations ranging from approximately 295 to 655 feet AMSL. Flowering typically occurs from March through July. Primary threats include habitat loss and fragmentation, altered hydrology, invasive species, and urban development.

Approximately 1 acre of vernal pools across 14 individual pools occurs within the northwestern portion of the survey area, within the Miramar College Vernal Pool Preserve. These vernal pools provide potential habitat for San Diego mesa mint. Although the vernal pool preserve is small, previously disturbed, and partially dominated by invasive species, suitable microhabitat conditions may still be present. As a result, San Diego mesa mint is considered to have moderate potential to occur within the vernal pool preserve. Focused protocol-level rare plant surveys were not conducted as part of the 2025 biological reconnaissance effort. This species has not been documented historically within 1 mile of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

San Diego mesa mint was not observed during the biological reconnaissance survey.

Sensitive Wildlife Species

No sensitive wildlife species were observed during the biological reconnaissance survey. One sensitive species—San Diego fairy shrimp—was determined to have high potential to occur on the project site, and one sensitive species—western spadefoot—was determined to have moderate potential to occur on the project site. San Diego fairy shrimp and western spadefoot are described in detail in the following section.

Sensitive Wildlife Species Not Observed but with Potential to Occur on the Project Site

San Diego Fairy Shrimp (*Branchinecta sandiegonensis*)

San Diego fairy shrimp is a federally endangered, CDFW species of special concern. San Diego fairy shrimp is a small, primitive freshwater crustacean with an ephemeral life cycle, existing for short periods of time in vernal pools or vernal pool-like habitats. This species has stalked, compound eyes, and phyllopodia (leaf-like swimming appendages that also function as gills). San Diego fairy shrimp are typically found in shallow,

shorter-lived habitats in elevations ranging from 15 to 125 meters but can be found as high as 500 meters from Santa Barbara to northwestern Baja California. As its name suggests, its distribution is centered in the County. San Diego fairy shrimp may appear when late fall, winter, and spring rains fill small vernal pools on coastal terraces. They live for approximately 3 weeks before dying. Threats to this species include development, off-road vehicles, and habitat loss.

Approximately 1 acre of vernal pools occur across 14 pools within the northwestern portion of the survey area, on the project site. These vernal pools provide potential habitat that could support San Diego fairy shrimp. Protocol wet season listed branchiopod surveys were not conducted as part of the 2025 survey effort. As a result, San Diego fairy shrimp is considered to have high potential to occur within the vernal pool preserve. Designated critical habitat for San Diego fairy shrimp does not occur within the survey area, and the closest critical habitat for this species occurs approximately 0.96 mile to the south (Figure 8; USFWS 2026b). San Diego fairy shrimp has been documented historically in the northwestern portion of the project site, within the vernal pool preserve area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve area in the northwestern portion of the project site provides potential foraging and refugia habitat for this species (Figure 9, Aquatic Resources). San Diego fairy shrimp was not observed during the biological reconnaissance survey.

Westen Spadefoot (*Spea hammondii*)

Western spadefoot is a federal candidate species for listing as threatened and a CDFW species of special concern. Western spadefoot is a medium-sized amphibian in the spadefoot toad family (Scaphiopodidae), characterized by smooth skin, vertical pupils, and a hardened, dark keratinous "spade" on the hind feet used for burrowing. This species has an ephemeral life cycle closely tied to seasonal rainfall, breeding in vernal pools, playas, stock ponds, and other temporary or semi-permanent freshwater features. Western spadefoot typically occurs in lowland and foothill areas, generally from near sea level to approximately 1,500 meters, from coastal Southern California through interior valleys and foothills, extending into northwestern Baja California. Adults spend most of the year underground in upland habitats such as grasslands, coastal sage scrub, and open chaparral, emerging during late fall, winter, or spring storm events to breed. Larval development is rapid, often completed within several weeks before breeding pools dry. Primary threats to this species include habitat loss and fragmentation, altered hydrology, road mortality, and degradation of breeding and upland refugia habitat.

Approximately 1 acre of vernal pools occurs across 14 individual pools within the northwestern portion of the survey area, on the project site. These vernal pools provide potential breeding habitat for western spadefoot. Suitable adjacent upland habitats within and surrounding the vernal pool preserve may also provide foraging and burrowing refugia habitat for adult individuals. As a result, western spadefoot is considered to have moderate potential to occur within the vernal pool preserve. Protocol-level wet season amphibian surveys were not conducted as part of the 2025 biological reconnaissance effort. This species has been historically documented approximately 0.8 mile southeast of the survey area (Figure 7; CDFW 2026a, 2026b; SanGIS 2026).

The vernal pool preserve area in the northwestern portion of the project site provides potential breeding, foraging, and refugia habitat for western spadefoot. Western spadefoot was not observed during the biological reconnaissance survey.

Nesting Birds

The survey area and immediate surrounding area provide nesting habitat for passerines and raptors, which are protected under the CFGC and MBTA. The survey area contains large numbers of ornamental

tree species and contains native scrub vegetation within the vernal pool preserve, suitable for nesting birds. No nests were observed during the biological reconnaissance survey.

The survey area and immediate surrounding area contain a multitude of cavities, shrubs, trees, and other vegetation and structures that provide suitable nesting habitat for breeding birds. Therefore, there is high potential for the project site to be used by multiple bird species for nesting and raising young.

Wildlife Corridors and Linkages

Wildlife corridors provide routes for local movement as well as regional linkages, often following linear topographic features, riparian areas, or undeveloped open space. These corridors can function as continuous habitats or as "stepping stone" areas, providing rest and foraging opportunities for migratory species, particularly birds. Local movement routes allow for daily access to resources such as cover, water, and foraging habitat, while regional linkages support larger-scale seasonal or migratory movements and long-term genetic exchange between populations. Habitat connectivity is generally influenced by topography, habitat quality, and the intensity of surrounding land uses.

The survey area is within a highly urbanized setting and is mostly developed with institutional infrastructure, roadways, and landscaping. As such, the project site does not function as a regional wildlife corridor or movement linkage, nor does it provide continuous habitat connections to adjacent open space. Opportunities for local wildlife movement are limited to common, urban-adapted species that use landscaped areas and fragmented patches of vegetation.

The vernal pool preserve in the northwestern portion of the campus retains some ecological value as a seasonal resource patch. Although isolated, this preserve may function as a small "stepping stone" site for migratory birds moving through the region, offering temporary foraging and resting habitat during seasonal movements. Beyond this preserve, the survey area does not contribute to broader habitat connectivity or regional wildlife corridors due to surrounding development and the absence of continuous natural habitats.

Critical Habitat

An analysis of the potential presence of critical habitat in the survey area was conducted. No critical habitat for sensitive plant or wildlife species occurs in the survey area. The nearest critical habitat is for San Diego fairy shrimp and is 0.96 mile south of the survey area (Figure 8).

Aquatic Resources

The survey area is situated within a developed urban landscape, and hydrology has been extensively modified through grading, storm drain infrastructure, and road construction associated with the campus and surrounding development. As a result, natural drainage patterns on the site have been altered, and opportunities for intact aquatic resources are limited.

A formal aquatic resources delineation was not conducted as part of this assessment. However, based on site observations and a review of available mapping resources, the only aquatic features present occur within the vernal pool preserve in the northwestern portion of the campus. These features include a series of vernal pools and a narrow, disturbed drainage channel that supports non-native riparian vegetation. The vernal pools represent seasonal depressional wetlands that pond water during the rainy season and support characteristic vegetation intermixed with non-native grasses. The adjacent channel, while heavily altered and dominated by invasive plant species, retains hydrologic characteristics consistent with a riparian feature.

Due to their wetland and riparian attributes, both the vernal pools and the non-native riparian channel within the preserve are potentially jurisdictional under the authority of the USACE pursuant to CWA

Section 404, the RWQCB pursuant to CWA Section 401 and the Porter-Cologne Act, and the CDFW pursuant to CFGC Section 1600 et seq. (Lake or Streambed Alteration Agreement). The extent of jurisdictional waters within the vernal pool preserve would require confirmation through a formal aquatic resources delineation (Figure 9).

Project Impact Analysis

This section discusses the potential direct or indirect impacts on biological resources associated with near-term and long-term campus development. These direct and indirect impacts may be permanent or temporary.

Direct impacts occur when biological resources are altered or destroyed during or as a result of project implementation. Examples of such impacts include removing or grading vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and the loss of individual species due to habitat clearing. Indirect impacts may include elevated levels of noise or lighting, changes in surface water hydrology within a floodplain, and increased erosion or sedimentation. These indirect impacts can affect vegetation communities or their potential use by sensitive species. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to construction and would not extend beyond project-associated construction, including revegetation of temporarily disturbed areas adjacent to native habitats.

Significance thresholds from Appendix G of the CEQA Guidelines are identified below for biological resources. A significant adverse impact would occur if implementation of the project would result in:

1. A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Wildlife (CDFG) or U.S. Fish and Wildlife Service (USFWS).
2. A substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.
3. A substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. A conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

Impacts

Construction activities would be limited to the campus footprint and would not extend into surrounding off-site areas. Project components include phased demolition, renovation, and construction of academic, administrative, and athletic facilities, as well as circulation and open space improvements. Construction staging for the project would occur within existing urban/developed portions of the campus, primarily in paved areas such as parking lots, internal roadways, and other disturbed surfaces. Therefore, direct impacts from project implementation are anticipated to occur only on the project site. Potential direct impacts may include temporary removal of ornamental landscaping and other vegetation opportunistically used by nesting or foraging birds, as well as localized habitat disturbance

within the vernal pool preserve if improvements, such as the community trail extension, proceed. Indirect impacts could result from temporary construction activities such as grading, excavation, or increased human activity. Potential direct and indirect impacts associated with the project are analyzed in detail below under Thresholds 1–4.

Thresholds 5 and 6 are not discussed below because construction activities are not expected to result in direct or indirect impacts on Habitat Conservation Plans, Natural Conservation Community Plan, or adjacent areas or conflict with local policies protecting resources.

Threshold 1: Sensitive Plant and Wildlife Species

Significant impacts on sensitive plant and wildlife species could result if the project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the CDFW and USFWS.

Analysis

No plant or wildlife species listed as candidate or sensitive or otherwise considered special status were observed during the biological reconnaissance survey.

No sensitive plant species have high potential to occur on the project site. Furthermore, the vernal pool preserve has undergone substantial historical disturbance associated with military, aviation, and educational uses, including grading, soil compaction, and the introduction of invasive species. Subsequent restoration efforts have been implemented to re-establish vernal pool functions and native plant assemblages. As a result, current site conditions differ from a fully natural vernal pool system. However, the presence of vernal pool soils and basins provides some potential for sensitive plant species to occur. Sensitive plant propagules may persist in the soil seed bank or be transported into the preserve via wind, wildlife, or stormwater flows, allowing for localized colonization within restoration zones, cracks, or other microhabitats. While invasive species and ongoing site stressors limit the likelihood of widespread occurrence, the possibility of recruitment by sensitive vernal pool taxa cannot be fully discounted.

One wildlife species, San Diego fairy shrimp, has high potential to occur on the project site. No San Diego fairy shrimp were observed during the survey.

No sensitive plant or wildlife species were observed during reconnaissance-level surveys. However, given the presence of vernal pool habitat, special-status branchiopods, amphibians, and migratory birds have the potential to occur. Outside the preserve, the campus supports only ornamental vegetation and urban-adapted wildlife species. Focused surveys were not conducted for San Diego fairy shrimp.

Direct Impacts

Program Level

Project components within the vernal pool preserve, including the proposed community trail extension and associated amenities, have the potential to directly impact sensitive species through vegetation removal, trampling, or hydrological alteration of pools. Construction could also result in the injury or mortality of individual wildlife species, including special-status invertebrates or amphibians adapted to ephemeral pools. Furthermore, when construction begins within the vernal pool preserve, sensitive plant species may exist on the site. Therefore, the removal of vegetation, use of heavy equipment, and human foot traffic have the potential to remove or trample and damage sensitive plant species. These would be potentially significant direct impacts, and mitigation (BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6 and BIO-7) would be required. Implementation of mitigation would reduce impacts to a less than significant level.

For long-term projects within the vernal pool preserve and elsewhere on the campus, sensitive nesting birds protected under the MBTA and CFGC may be affected if vegetation is removed during the breeding season. Removal of other vegetation and other objects (i.e., riprap) on the project site that provide nesting bird habitat could result in significant impacts on species covered by the MBTA and CFGC Section 3504, and mitigation (BIO-7) would be required. Implementation of mitigation would reduce impacts to a less than significant level.

Project Level

The English Gallery and Performing Arts Center Building and Early Education Center Building projects are the two near-term projects occurring on the campus. These projects would occur within developed and previously disturbed portions of the campus and would not directly impact the vernal pool preserve.

Removal of ornamental vegetation and other features (e.g., trees, shrubs, and riprap areas) during the nesting bird season (January 15 through August 31) could result in direct impacts on nesting birds protected under the MBTA and CFGC Sections 3503 and 3504. This impact would be potentially significant. Implementation of mitigation measures (Biological Mitigation Measure [BM]-7) would reduce impacts to a less than significant level.

Indirect Impacts

Program Level and Project Level

Temporary indirect impacts on plant and wildlife species as a result of construction of near-term and long-term projects may include the spread or introduction of non-native invasive species, increased fugitive dust, elevated noise, vibration, changes in hydrology/hydraulics, loss of vegetation due to hydrology changes, increased human activity, negative effects on water quality (increased turbidity, excessive sedimentation, flow interruptions, and changes in water temperature), and increased trash that can attract both introduced and native predators (e.g., domestic dogs, common ravens). Implementation of the project has the potential to push sensitive wildlife species (i.e., nesting birds) out of the site because of increased noise, vibration, and human activity. Project activities may also prevent sensitive species from using the site due to vegetation loss and hydrology changes. All aforementioned temporary indirect impacts could result in potentially significant impacts on sensitive wildlife species that may occur on the project site, and mitigation (BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, and BIO-10) would be required. Implementation of mitigation would reduce impacts to a less than significant level.

Threshold 2: Sensitive Habitat Communities

Impacts on sensitive natural communities are significant if they have a substantial adverse effect on those communities. Vernal pools, Diegan coastal sage scrub, and non-native riparian are considered sensitive natural communities and riparian habitat by the CDFW.

Analysis

The campus, specifically the designated vernal pool preserve, contains 1 acre of vernal pools, 5.30 acres of Diegan coastal sage scrub, and 0.14 acre of non-native riparian. The remaining portion of the campus is non-native grassland and urban/developed land.

Direct Impacts

Program Level

Construction of the long-term projects would generally occur within already developed portions of the campus. However, improvements within the vernal pool preserve (e.g., the Vernal Pool Community Trail Extension project with elevated trail extension and viewing platforms) could result in direct impacts on

vernal pool, Diegan coastal sage scrub, and non-native riparian habitat. Therefore, direct permanent and temporary impacts on sensitive vegetation communities from project implementation would be significant, and mitigation (BIO-2, -3, BIO-4 and BIO-5) would be required for improvements within the vernal pool preserve. Implementation of mitigation would reduce impacts to a less than significant level. All other long-term projects occurring within already developed portions of the campus would have no impact on sensitive natural communities, and no mitigation would be required.

Project Level

Construction of the two near-term projects would occur within already developed portions of the campus and would not result in direct impacts on sensitive natural communities. No impact would occur, and no mitigation would be required.

Indirect Impacts

Program Level

Indirect impacts on sensitive natural communities could occur through increased dust or the introduction and spread of invasive plant species within the vernal pool preserve, which could alter the function of the pools or further reduce native cover. Recreational use of the proposed trail extension could result in trampling of vegetation adjacent to the trail alignment. These would be potentially significant impacts, and mitigation (BIO-4, BIO-9, and BIO-10) would be required. Implementation of mitigation would reduce impacts to a less than significant level.

Indirect impacts on sensitive natural communities are not anticipated for long-term projects located outside the vernal pool preserve, and no mitigation would be required.

Project Level

No direct encroachment into sensitive natural communities is anticipated from near-term projects, as these activities would occur within previously developed areas of the campus. However, construction activities have the potential to result in minor indirect effects, such as the generation of fugitive dust that could temporarily affect adjacent habitats, including the vernal pool preserve. Implementation of BIO-10 would ensure that dust generation is minimized through standard best management practices (e.g., watering of exposed soils and covering of haul trucks), thereby avoiding indirect degradation of sensitive vegetation communities. With implementation of BIO-10, indirect impacts on sensitive natural communities would be less than significant.

Threshold 3: Impacts on Wetland and Aquatic Habitats

A formal aquatic resources delineation was not conducted for the project site. Substantial adverse impacts on wetlands (e.g., marsh, vernal pool, riparian) through direct removal, filling, hydrological interruption, or other means are significant. Significant impacts on state or federally jurisdictional aquatic resources would require permits from the USACE and/or the RWQCB.

Analysis

The campus contains a 12-acre vernal pool preserve in the northwestern portion of the campus that supports a series of restored vernal pools and a narrow drainage with non-native riparian vegetation. To implement proposed improvements, specifically the extension of the Vernal Pool Community Trail with elevated walks and viewing platforms, construction activities would occur within portions of the preserve. Work in this area may temporarily disturb soils and vegetation and could alter microtopography that supports pool hydrology. These activities would result in a temporary loss of hydrologic function within localized portions of the vernal pool basins or riparian drainage and could affect habitat quality for associated plant and wildlife species (Figure 9).

Direct Impacts

Program Level

Direct impacts may occur if project construction in the vernal pool preserve results in the loss or alteration of vernal pool basins or riparian habitat. Trail construction in the vernal pool preserve could also directly disturb riparian vegetation through removal or trimming, resulting in permanent or temporary habitat loss. Vernal pool and riparian habitat may be considered jurisdictional by the USACE, RWQCB, and/or CDFW pursuant to Sections 401 and 404 of the CWA and Section 1602 of the CFGC. Therefore, mitigation (BIO-2, BIO-5, BIO-11, and BIO-12) would be required, and permitting may be required. Implementation of mitigation would reduce impacts to a less than significant level.

Direct impacts on aquatic resources are not anticipated for long-term projects outside the vernal pool preserve.

Project Level

Near-term projects would not occur within vernal pools or other aquatic resources. Therefore, no direct impacts on wetlands or jurisdictional aquatic resources would occur, and no mitigation would be required.

Indirect Impacts

Program Level

For the long-term Vernal Pool Community Trail Extension Project, indirect impacts could result from temporary changes in hydrology or hydroperiod within vernal pools, erosion and sedimentation from adjacent grading, dust deposition, or pollutant inputs (e.g., fuels, oils, or construction debris). Increased human presence along new trail features could lead to trampling of vegetation, spread of invasive plant species, and disturbance to wildlife using the pools or riparian corridor. These indirect impacts, although potentially temporary, would be potentially significant impacts, and mitigation (BIO-4 and BIO-10) would be required. Implementation of mitigation would reduce impacts to a less than significant level.

Indirect impacts on aquatic resources are not anticipated for long-term projects outside the vernal pool preserve.

Project Level

No direct encroachment into aquatic resources is anticipated from near-term projects, as these activities would occur within previously developed areas of the campus. However, construction activities have the potential to result in minor indirect effects, such as the generation of fugitive dust that could temporarily affect adjacent aquatic resources, including the vernal pool preserve. Implementation of BIO-10 would ensure that dust generation is minimized through standard best management practices (e.g., watering of exposed soils and covering of haul trucks), thereby avoiding indirect degradation of aquatic resources. With implementation of BIO-10, indirect impacts on aquatic resources would be less than significant.

Threshold 4: Impacts on Wildlife Movement, Corridors, or Habitat Linkages

Substantial limitations to the movement of any native resident or migratory fish or wildlife species or blocking of or impediments to established native resident or migratory wildlife and resident nursery corridors would be significant.

Analysis

The campus is surrounded by dense urban development and roadways, including Interstate 15. The campus does not provide a regional wildlife corridor or linkage. However, the vernal pool preserve provides seasonal habitat that may function as a stopover site for migratory birds.

Direct Impacts

Program Level

One long-term project, the Vernal Pool Community Trail Extension Project, may occur within the vernal pool preserve, which provides localized habitat that may support nesting by common and migratory bird species. While the preserve does not function as a regional wildlife movement corridor, vegetation within the preserve may be used for nesting. Removal or disturbance of vegetation during the breeding season could result in direct impacts on active nests. However, suitable nesting habitat would remain within the vernal pool preserve, and implementation of BIO-7 would ensure that pre-construction surveys and appropriate avoidance buffers are established to prevent impacts on active nests. Therefore, impacts on nesting birds would be less than significant.

No migratory fish species occur or have the potential to occur within the campus; therefore, no impacts on migratory fish are anticipated.

Project Level

Near-term projects would occur within developed areas and would not interfere with wildlife movement or nursery sites. Impacts would be less than significant, and no mitigation would be required.

Indirect Impacts

Project Level and Program Level

No indirect impacts are expected to occur on wildlife corridors, movement, or wildlife habitat linkages, and no mitigation is required.

Mitigation and Monitoring Requirements

This section identifies BMs and monitoring requirements that should be implemented as part of the project to prevent impacts on sensitive biological resources to the maximum extent feasible.

The applicability of mitigation measures varies by project phase. Near-term projects, which occur within developed areas, primarily require construction-phase avoidance and best management practices (e.g., nesting bird protection, dust control). Long-term projects, particularly those occurring within the vernal pool preserve, require additional measures related to sensitive habitat avoidance, focused biological surveys, and regulatory compliance for potential impacts on sensitive vegetation communities and jurisdictional resources. Certain measures, such as biological monitoring, invasive species control, and stormwater management, apply to both near-term and long-term projects and are implemented during all construction activities.

The following mitigation measures apply solely to the long-term projects, specifically improvements within the vernal pool preserve: BIO-1, BIO-2, BIO-3, BIO-5, BIO-6, BIO-11, and BIO-12.

The following mitigation measures apply to both near-term and long-term projects: BIO-4, BIO-7, BIO-8, BIO-9, and BIO-10.

BIO-1: Focused Sensitive Plant Species Surveys. Prior to any construction or grading activities in the vernal pool preserve area, focused surveys for future site-specific development shall be conducted, as applicable, in suitable habitat, to determine the presence or absence of sensitive

plant species on the project site. Focused sensitive plant surveys shall be conducted during the species' specific blooming periods to determine presence or absence. If sensitive plant species are mapped in any proposed construction, access, or staging areas, these species shall be quantified and flagged, and the areas shall be modified to avoid direct impacts on the mapped sensitive plant species. If significant impacts on these species are unavoidable, the take of these species shall be reduced to a less than significant level through implementation of mitigation measures. Consultation with the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife shall be required for listed non-covered species.

This measure applies to project components in the vernal pool preserve which supports suitable habitat for sensitive plant species. It is not applicable to fully developed or landscaped portions of the campus lacking suitable habitat.

BIO-2: Mitigation for Impacts on Sensitive Vegetation Communities. Any direct impacts on sensitive vegetation communities in the vernal pool preserve area (including vernal pools, coastal sage scrub, riparian habitat, and other natural communities supporting sensitive biological resources) shall be avoided to the maximum extent practicable through project design, including siting, buffering, and minimization of disturbance areas.

Where impacts cannot be avoided, they shall be mitigated in accordance with California Environmental Quality Act and applicable federal and state regulations. Mitigation may include habitat restoration, creation, enhancement, and/or off-site compensatory mitigation (e.g., mitigation bank credits or in-lieu fee programs) as appropriate. Temporary impacts on sensitive vegetation communities shall also require restoration to pre-construction conditions, including revegetation (refer to Mitigation Measure BM-3).

For impacts on jurisdictional resources, mitigation requirements, including ratios and performance standards, shall be determined through consultation and permitting with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife.

For impacts on vernal pools, mitigation and permitting requirements shall be determined in coordination with the appropriate resource agencies (e.g., U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Regional Water Quality Control Board) and shall be consistent with applicable federal and state regulations and approved conservation strategies as applicable.

This measure applies to project components that would result in impacts on sensitive vegetation communities, including those within the vernal pool preserve. It is not applicable to development occurring entirely within previously disturbed or developed campus areas.

BIO-3: Habitat Restoration for Temporary Impacts. Temporary impact areas in the vernal pool preserve shall be restored to pre-construction topographic contours and conditions, including the revegetation of native plant communities, where appropriate, following disturbance. Habitat restoration and erosion control treatments shall be installed in these short-term impact areas. Habitat revegetation shall feature native species that are typical of the area, and associated erosion control best management practices shall include silt fence and microplastic- and weed-free straw fiber rolls where appropriate. After replanting, a 120-day plant establishment period and a 25-month maintenance and monitoring program shall be implemented to ensure adequate establishment and sustainability of the plantings and seedings.

Where covered-species status identifies the need for reintroduction and/or increasing the population, the covered species shall be included in restoration or revegetation plans as appropriate. Restoration or revegetation proposals shall require the preparation of a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring, success criteria, and remediation and contingency measures. Wetland restoration or revegetation proposals are subject to permit authorization by federal and state agencies.

This measure applies to temporary impact areas in the vernal pool preserve; however, it is most applicable to areas supporting native or sensitive vegetation communities where restoration to pre-disturbance conditions is required.

BIO-4: Biological Monitor. A biological monitor shall be required for projects in the vernal pool preserve area. The project biologist shall be responsible for the following:

- Providing a Worker Environmental Education Program to all construction workers.
- Conducting a field review of the designated limits of all construction prior to clearing, grubbing, grading, or demolition.
- Monitoring construction activities to verify that construction is proceeding in compliance with all permit requirements specific to biological resources.
- Designating a biological monitor who shall remain on site in place of the project biologist during all construction in the vernal pool preserve.
- Maintaining communication with the appropriate construction personnel so that issues relating to biological resources are appropriately and lawfully managed.
- Inspecting the project site before the start and at the end of construction each day to ensure cover and/or escape routes from excavated areas are provided for wildlife. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and the edges shall be covered with soil and plastic sheeting such that small wildlife cannot access them. Soil piles shall be covered at night to prevent wildlife from burrowing in. Sheeting edges shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and before sealing the exposed area) by an approved biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route.
- Verifying the construction site is implementing Stormwater Pollution Prevention Plan requirements and any other plans associated with the project.

This measure applies to all project-related construction activities in the vernal pool preserve. It is not applicable to development occurring entirely within previously disturbed or developed campus areas.

BIO-5: Vernal Pool Delineation, Buffer Establishment, and Avoidance During Final Design and Construction. Prior to and during preparation of final design plans for any project phase in the vernal pool preserve area with the potential to affect depressional features or areas exhibiting vernal pool indicators, the District shall retain a qualified biologist to conduct focused vernal pool mapping. Surveys shall be conducted during appropriate hydrologic conditions (i.e., during or immediately following peak ponding, where feasible) to accurately delineate the extent and location of vernal pools and associated hydrologic features.

The results of the vernal pool delineation shall be incorporated into the final project design to ensure avoidance of vernal pools to the maximum extent practicable. A minimum 100-foot vernal pool buffer shall be established and clearly depicted on final construction plans. Project grading limits,

access routes, staging areas, and construction footprints shall be modified as necessary to avoid direct and indirect impacts on vernal pools and their buffers.

Prior to the start of construction for the applicable project phase, environmentally sensitive area fencing shall be installed along the outer edge of the approved vernal pool buffer. Environmentally sensitive area fencing shall remain in place for the duration of construction and shall be inspected regularly by a qualified biologist to ensure integrity. Signage shall be installed on the environmentally sensitive area fencing at regular intervals.

If complete avoidance of vernal pools and associated buffers is determined to be infeasible, the District shall consult with applicable resource agencies to determine additional impact analysis, permitting, and mitigation requirements prior to implementation of the affected project phase. No impacts on vernal pools shall occur without prior agency approval and implementation of all required mitigation measures.

BIO-6: Sensitive Wildlife Avoidance. Prior to any construction or grading activities in the vernal pool preserve area, focused surveys for future site-specific development shall be conducted, as applicable, in suitable habitat to determine the presence and absence of sensitive wildlife species on the project site. If sensitive wildlife species or their habitats are present or potentially present based on biological surveys, the following measures shall be implemented:

- If suitable habitat for San Diego fairy shrimp is present, and clearing, grubbing, grading, or other impacts on vernal pools may occur from construction activities, a qualified biologist shall conduct focused surveys per approved protocols. If San Diego fairy shrimp is detected, consultation with the U.S. Fish and Wildlife Service shall be necessary.
- If western spadefoot becomes listed prior to implementation of future site-specific development projects, and clearing, grubbing, grading, or other impacts on suitable habitat may occur from construction activities, focused surveys and consultation with the U.S. Fish and Wildlife Service shall be necessary.

Before the start of construction, a pre-construction survey must be completed within 5 days of the start of construction to identify the presence and location of any sensitive wildlife. Sensitive species must be avoided. If species cannot be avoided, impacts on those species must be evaluated, and mitigation (including relocation) may be required. Federally listed species may require consultation with the U.S. Fish and Wildlife Service. Sensitive wildlife species must be mapped, and if necessary, consultation with resource agencies shall occur.

This measure applies exclusively to project components in the vernal pool preserve or areas exhibiting vernal pool characteristics and is not applicable to developed campus areas lacking such features.

BIO-7: Nesting Birds. No grubbing, trimming, or clearing of vegetation from the project site shall occur during the general bird breeding season (January 15 through August 31). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside the breeding season, a qualified biologist shall perform a pre-construction nesting bird survey no more than 3 calendar days before the start of vegetation grubbing, trimming, or clearing. If an active nest is located before or during monitoring of construction, the project biologist shall place a buffer of appropriate size based on species (e.g., 200 feet for passerines and 500 feet for raptors) or observed behavior until it has been determined that the young have fledged or the nest has failed.

This measure applies to all project areas where suitable habitat for nesting birds may occur, including both developed campus areas and the vernal pool preserve.

BIO-8: Trash Control. To avoid attracting wildlife, including predators, to any project site proposed under the Master Plan, fully covered trash receptacles that are wildlife-proof and weather-proof shall be installed and used by the construction contractor to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Littering shall be prohibited, and trash shall be removed from construction areas daily.

This measure applies to all active construction areas across both developed campus areas and the vernal pool preserve.

BIO-9: Invasive Weed Control. To minimize the spread of non-native, invasive plant species, no planting or seeding of invasive plant species (per the most recent version of the California Invasive Plant Council's California Invasive Plant Inventory for the project region) shall be permitted. In addition, best management practices used on the project site shall be certified weed-free. Vehicles must not enter the project site without being power-washed if they are coated with mud or dirt chunks that may contain invasive weed seeds.

This measure applies to all active construction areas across developed campus areas and the vernal pool preserve.

BIO-10: Dust Control. All material excavated, graded, or demolished shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed areas. All haul trucks hauling soil, sand, and other loose materials with the potential to create excessive dust shall be covered with tarps or other enclosures that shall reduce fugitive dust emissions.

This measure applies to all ground-disturbing activities throughout the project site, including both developed campus areas and the vernal pool preserve.

BIO-11: Aquatic Resources Delineation. Prior to issuance of any grading, clearing, or construction permits for projects in the vernal pool preserve, the project applicant or its designee shall conduct a formal aquatic resources delineation to identify waters of the United States, waters of the state, wetlands, and other jurisdictional aquatic features in the project impact limits. The delineation shall be prepared by a qualified biologist in accordance with the most current U.S. Army Corps of Engineers wetland delineation manual and applicable regional supplements, and all applicable state and federal regulations, including the Clean Water Act and Porter-Cologne Water Quality Control Act.

The delineation shall be submitted to the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife for jurisdictional verification. Any impacts on jurisdictional aquatic resources identified through the approved delineation shall be avoided to the maximum extent practicable or otherwise mitigated in accordance with applicable permit requirements and regulatory agency conditions.

This measure applies to all construction activities involving ground disturbance or material handling within the vernal pool preserve.

BIO-12: Mitigation for Jurisdictional Aquatic Resources. For projects in the vernal pool preserve, the District shall consult with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife to determine jurisdictional authority over the on-site aquatic resources. If required, permits shall be issued by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife before impacts on jurisdictional aquatic resources occur. Before construction in any areas containing jurisdictional aquatic features, the applicant shall obtain authorizations pursuant to

federal Clean Water Act, Sections 401 and 404, and California Fish and Game Code, Section 1602.

If required by the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife, compensatory mitigation shall be implemented to mitigate impacts on jurisdictional aquatic resources. This mitigation shall be in the form of credit purchases at an approved wetlands mitigation bank, in-lieu fee mitigation, or other permittee-responsible mitigation as approved by the agencies.

A report of waste discharge pursuant to California Water Code, Section 13050, shall be required for waters of the state determined to be non-jurisdictional under Sections 401 and 404 of the federal Clean Water Act. Any measures required as part of the issuance of the report of waste discharge shall be implemented.

Authorization for the alteration of streambeds and banks of the state shall be required under California Fish and Game Code, Section 1602, and a streambed alteration agreement application shall be required before work occurring in California Department of Fish and Wildlife jurisdictional areas. Mitigation requirements determined through the process of obtaining the necessary permits shall be implemented before the start of construction.

This measure applies only where impacts on jurisdictional aquatic resources may occur, such as within the vernal pool preserve, and is not applicable to developed campus areas without such features.

Mitigation Summary

The project is not expected to cause significant impacts on biological resources as a result of construction with mitigation incorporated. Table 3, Summary of Impacts, Applicable Mitigation Measures, and Significance After Mitigation, summarizes the potential direct and indirect impacts, the mitigation measures applicable to the impact type, and the level of significance after mitigation.

Table 3. Summary of Impacts, Applicable Mitigation Measures, and Significance After Mitigation

Significance Criteria and Impact	Applicable Mitigation Measures	Significance After Mitigation
1. A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species or other local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS).		
Direct Impacts	Near-term projects: BM-7 Long-term projects: BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, and BIO-7	Less than Significant
Indirect Impacts	Near-term and long-term projects: BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, and BIO-10	Less than Significant
2. A substantial adverse impact on any sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS.		
Direct Impacts	Near-term projects: no mitigation required Long-term projects: BM-2, BIO-3, BIO-4, and BIO-5	Less than Significant

Table 3. Summary of Impacts, Applicable Mitigation Measures, and Significance After Mitigation

Significance Criteria and Impact	Applicable Mitigation Measures	Significance After Mitigation
Indirect Impacts	Near-term projects: BIO-10 Long-term projects: BIO-4, BIO-9, and BIO-10	Less than Significant
3. A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means.		
Direct Impacts	Near-term projects: no mitigation required Long-term projects: BIO-2 BIO-5, BIO-11, and BIO-12	Less than Significant
Indirect Impacts	Near-term projects: BIO-10 Long-term projects: BIO-4 and BIO-10	Less than Significant
4. Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.		
Direct Impacts	Near-term projects: no mitigation required Long-term projects: BIO-7	Less than Significant
Indirect Impacts	Near-term and long-term projects: no mitigation required	No Impacts

Preparers

Harris & Associates

Chris Thomson, Senior Biologist

If you have any questions about this letter report, please contact me at (619) 980-2599 or Chris.Thomson@WeAreHarris.com.

Sincerely,



Chris Thomson
Senior Biologist

Attachments

1, Figures
2, Photographic Log
3, Plant Species Observed
4, Wildlife Species Observed

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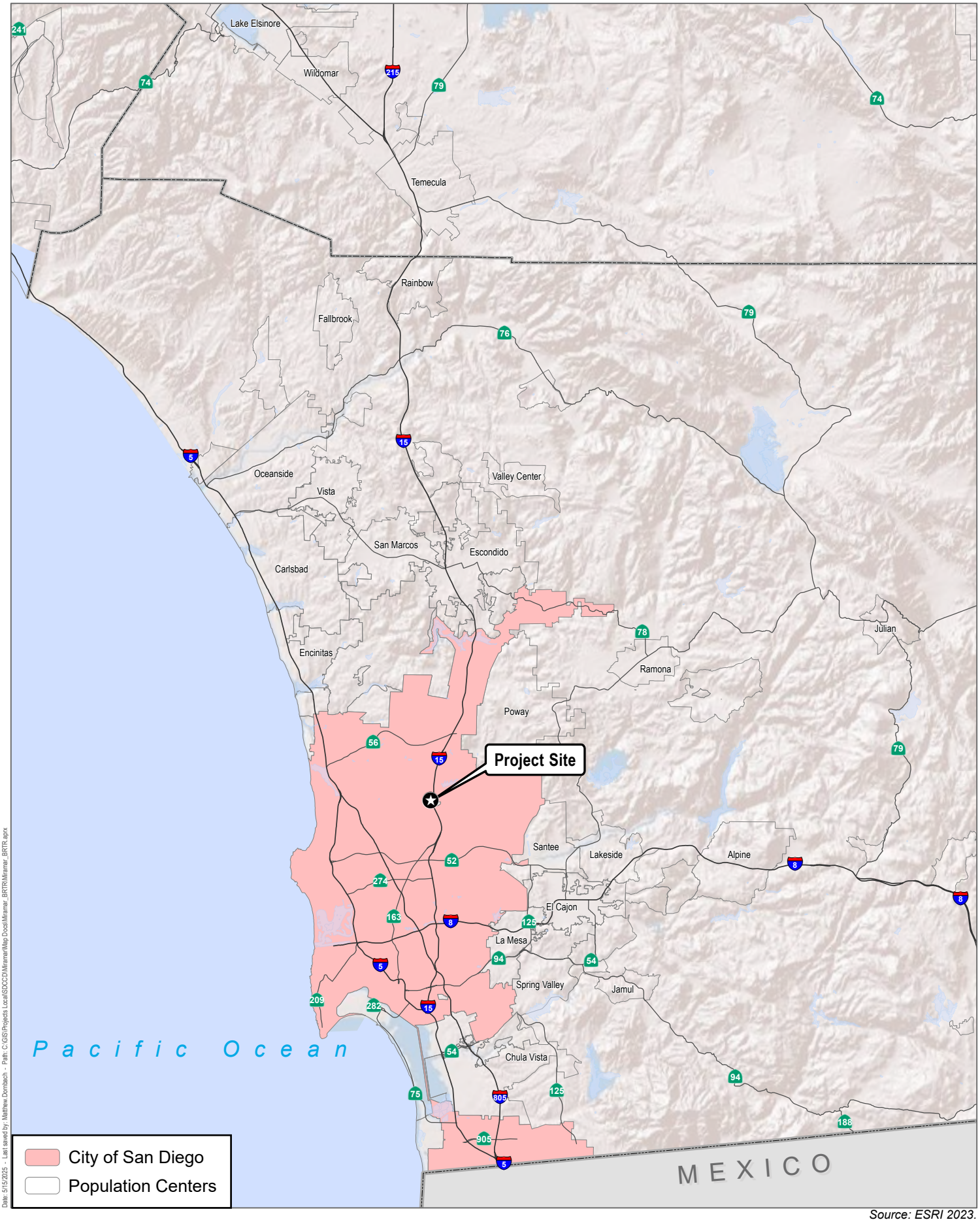
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Attachment 1. Figures

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Source: ESRI 2023.

Harris & Associates

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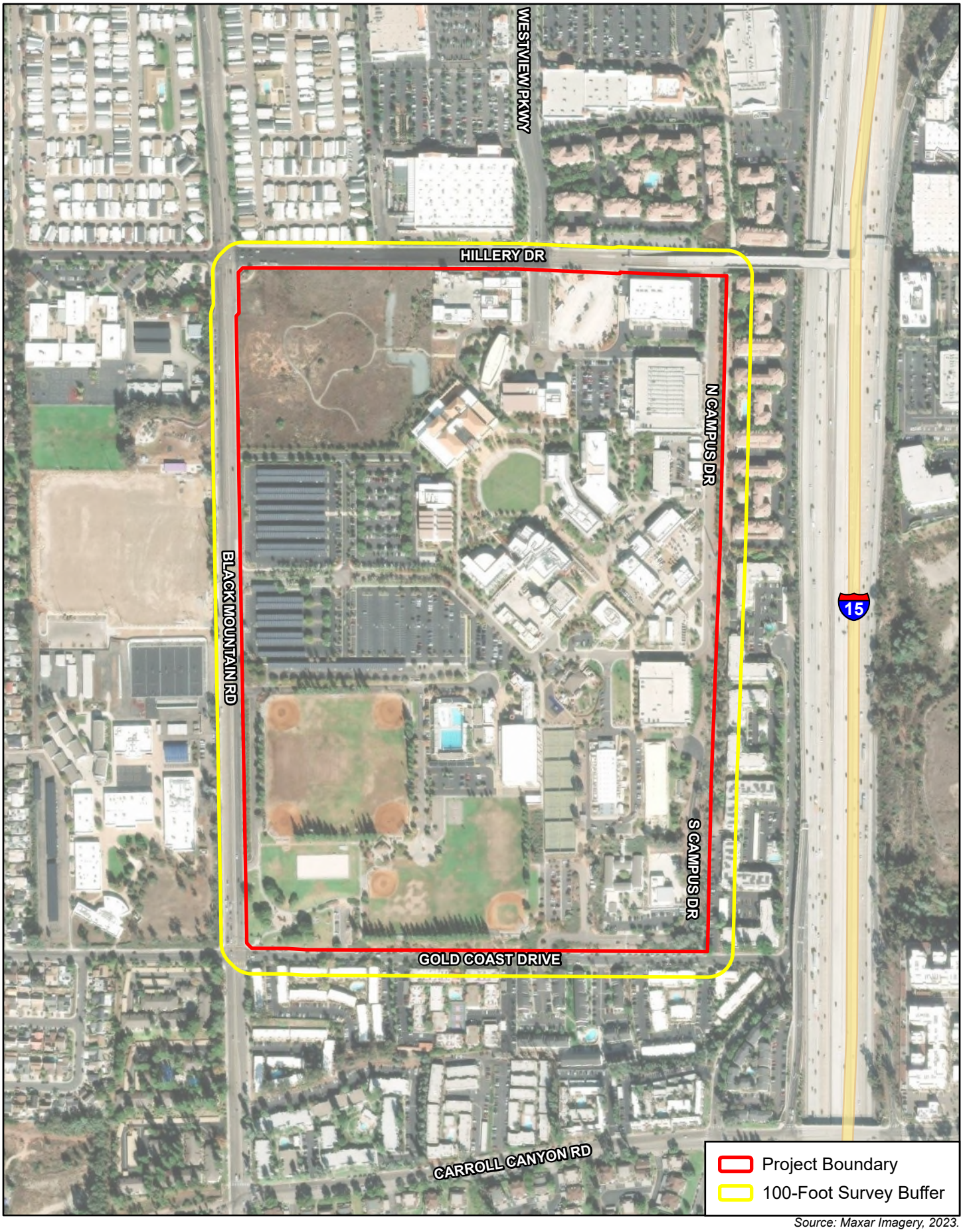
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Figure 1

Regional Location

Miramar College PEIR

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Source: Maxar Imagery, 2023.

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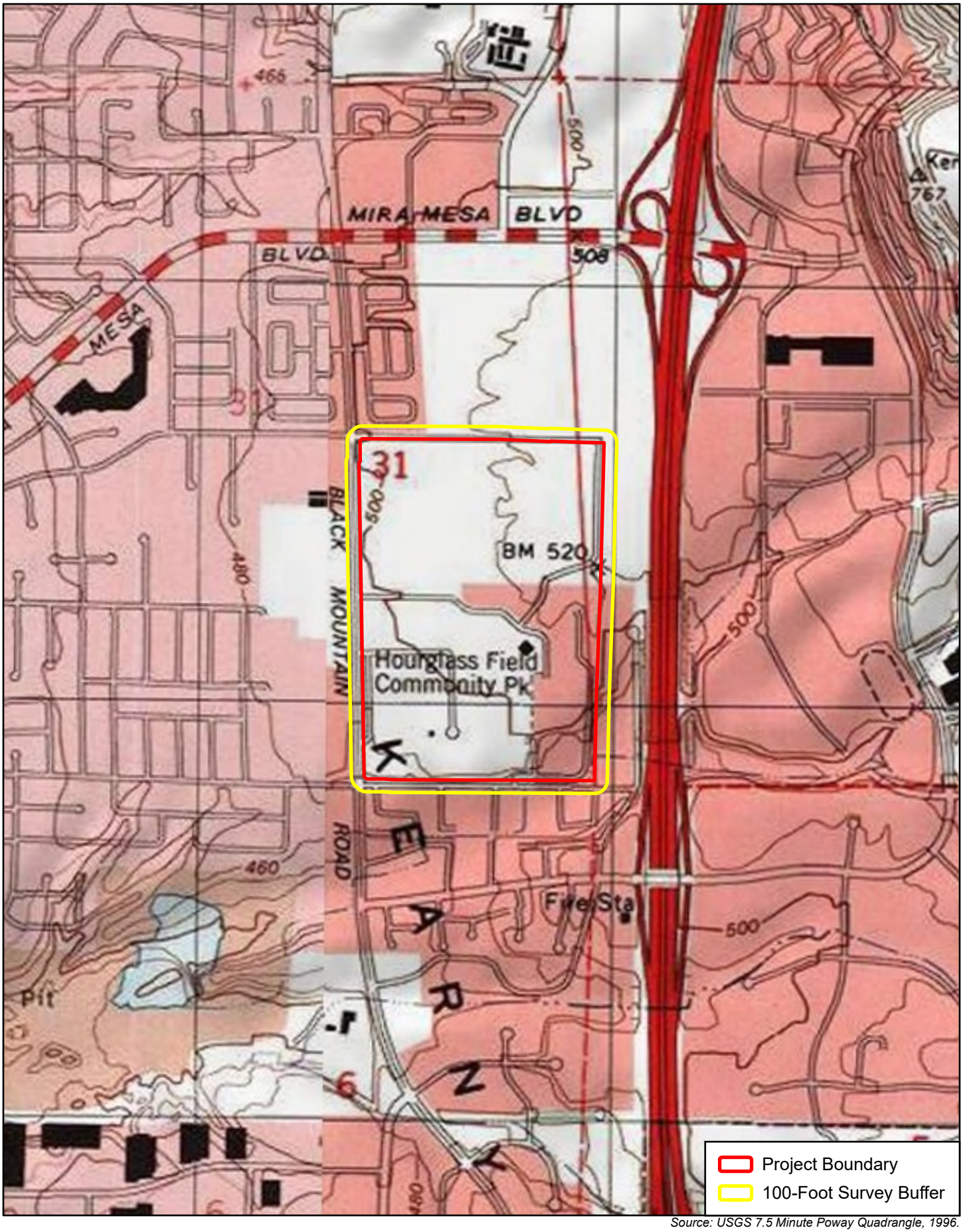
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Figure 2

Project Location

Miramar College PEIR

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Source: USGS 7.5 Minute Poway Quadrangle, 1996.

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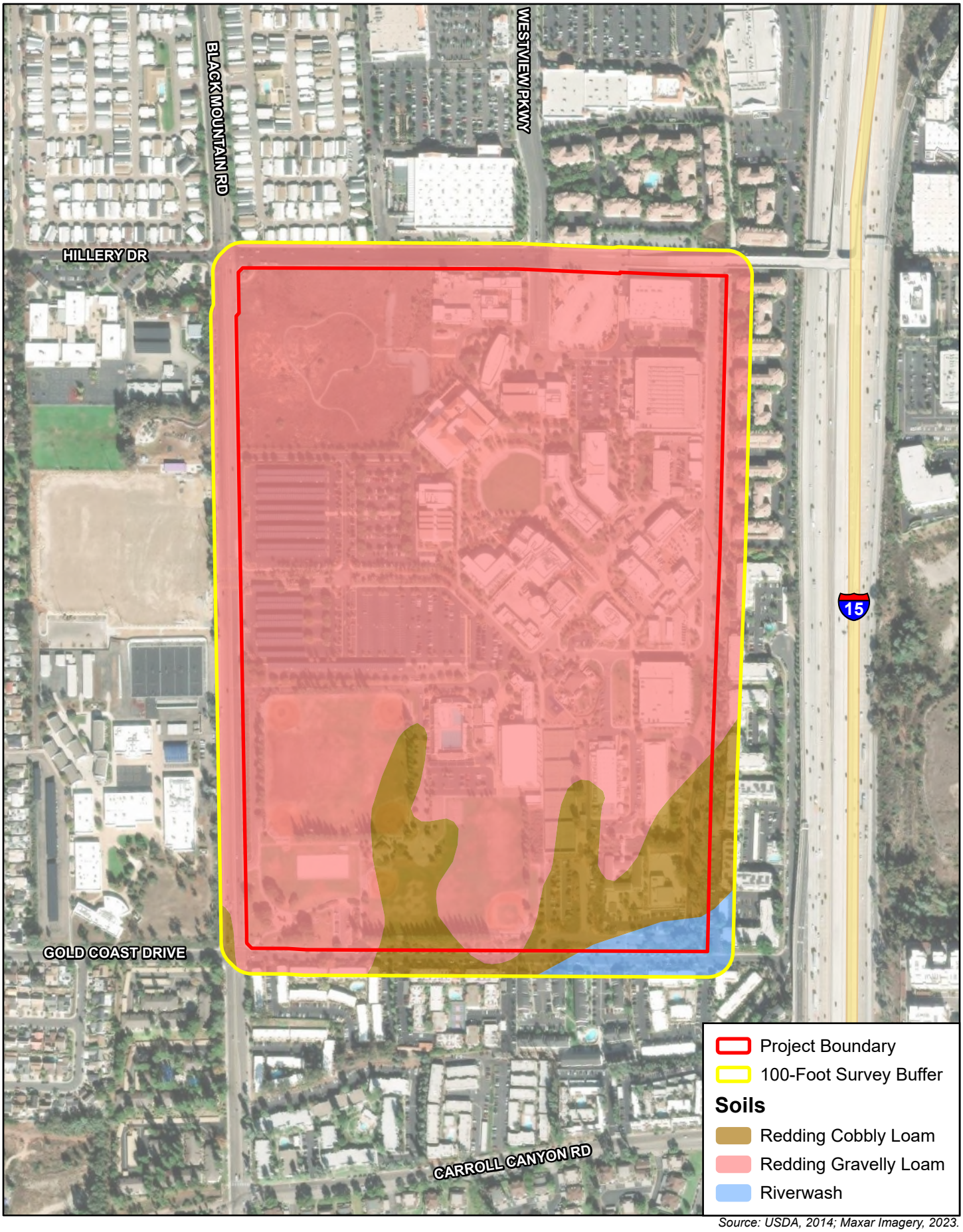
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Figure 3

USGS Topographic Map

Miramar College PEIR

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Source: USDA, 2014; Maxar Imagery, 2023.

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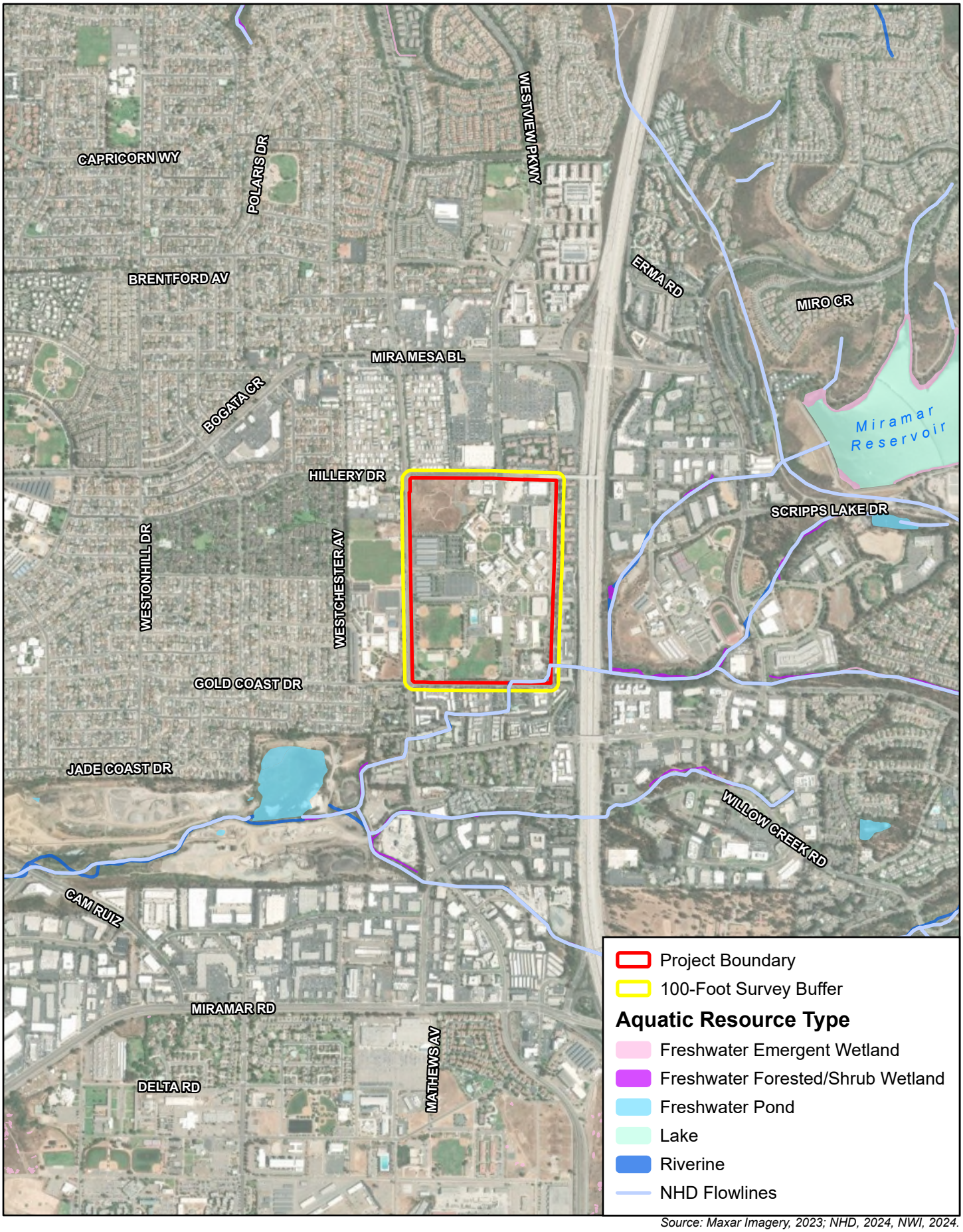
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Figure 4

Soils

Miramar College PEIR

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Source: Maxar Imagery, 2023; NHD, 2024, NWI, 2024.

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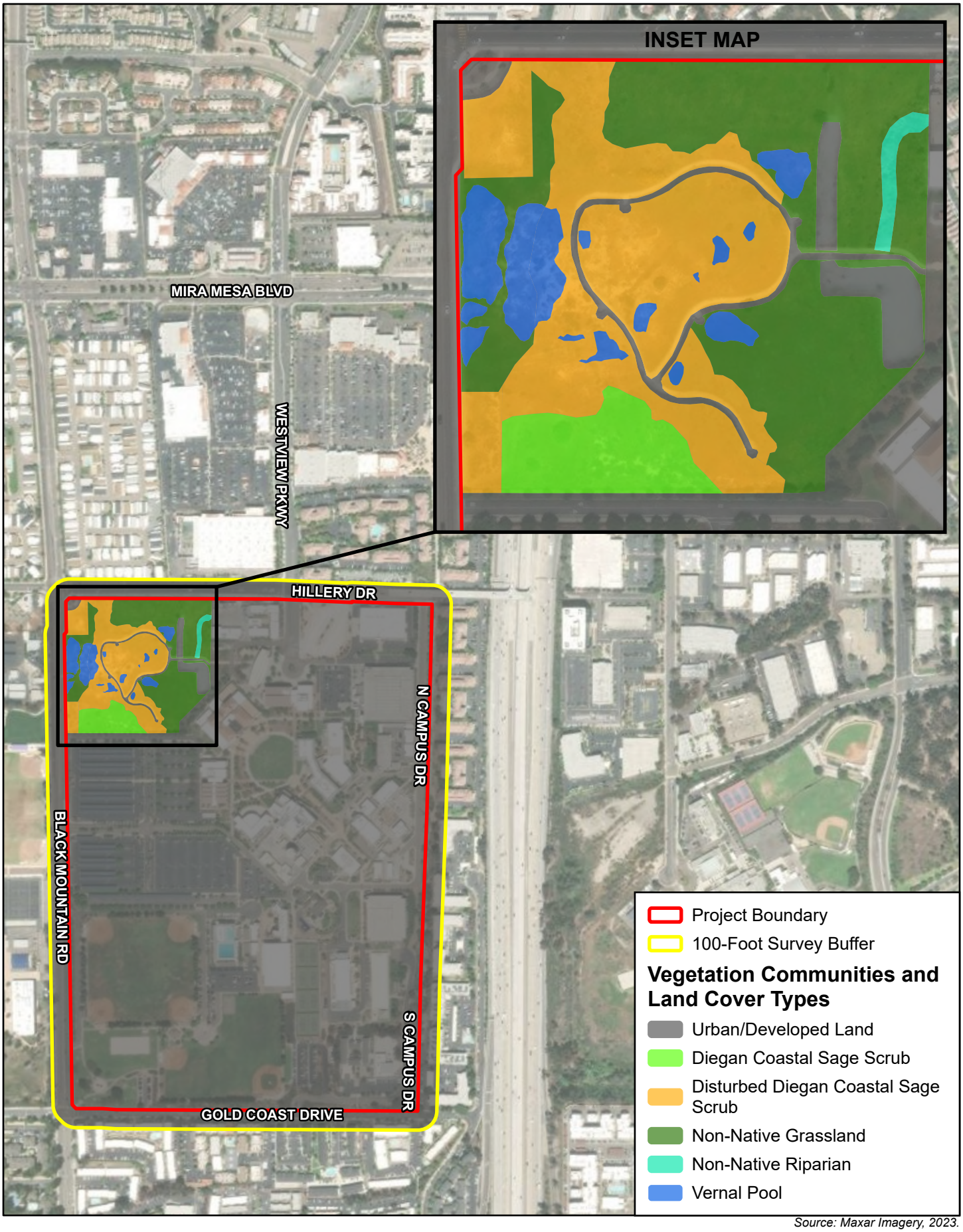
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Figure 5

Hydrology

Miramar College PEIR



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Source: Maxar Imagery, 2023.

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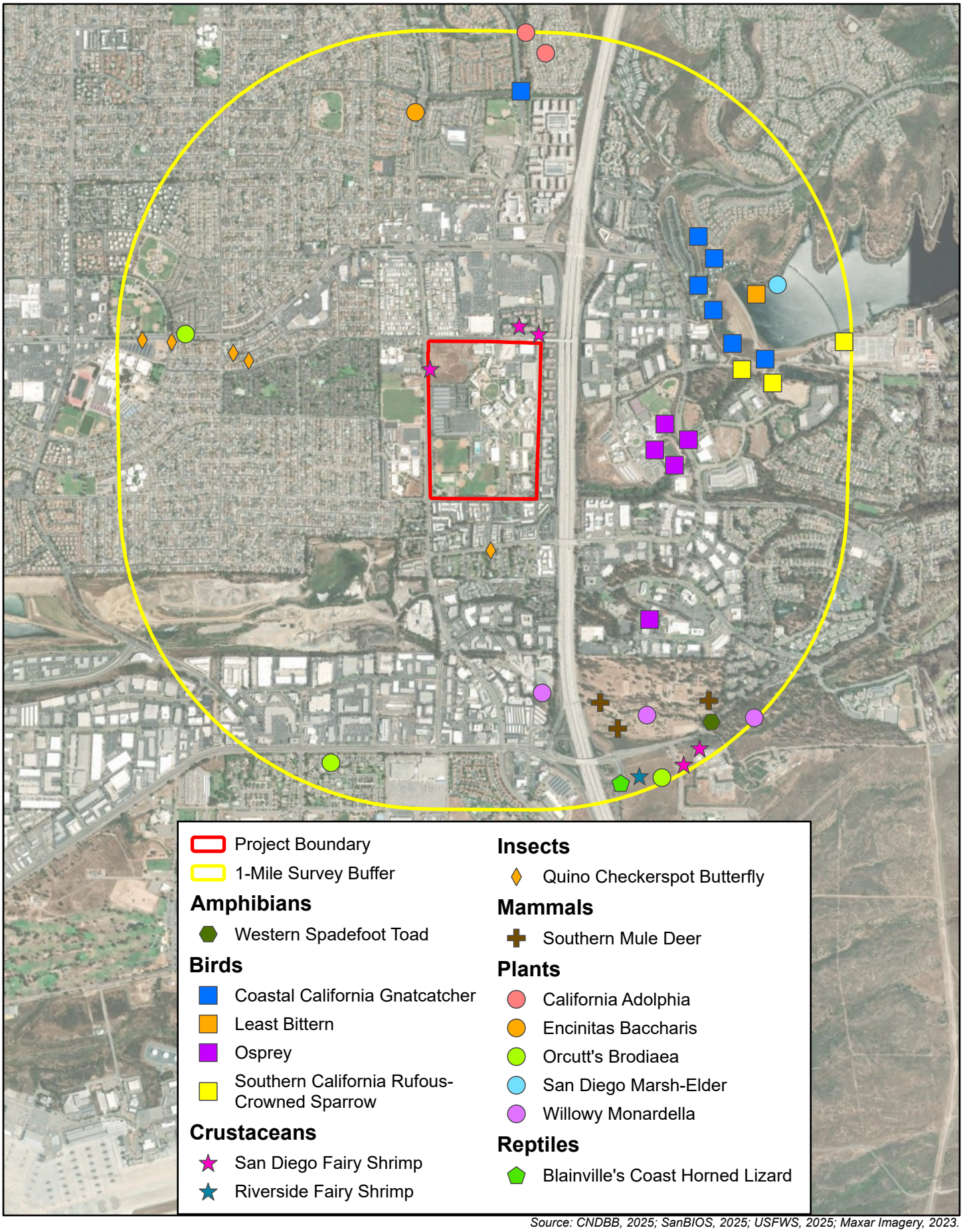
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Figure 6

Vegetation Communities and Land Cover

Miramar College PEIR



Source: CNDBB, 2025; SanBIOS, 2025; USFWS, 2025; Maxar Imagery, 2023.

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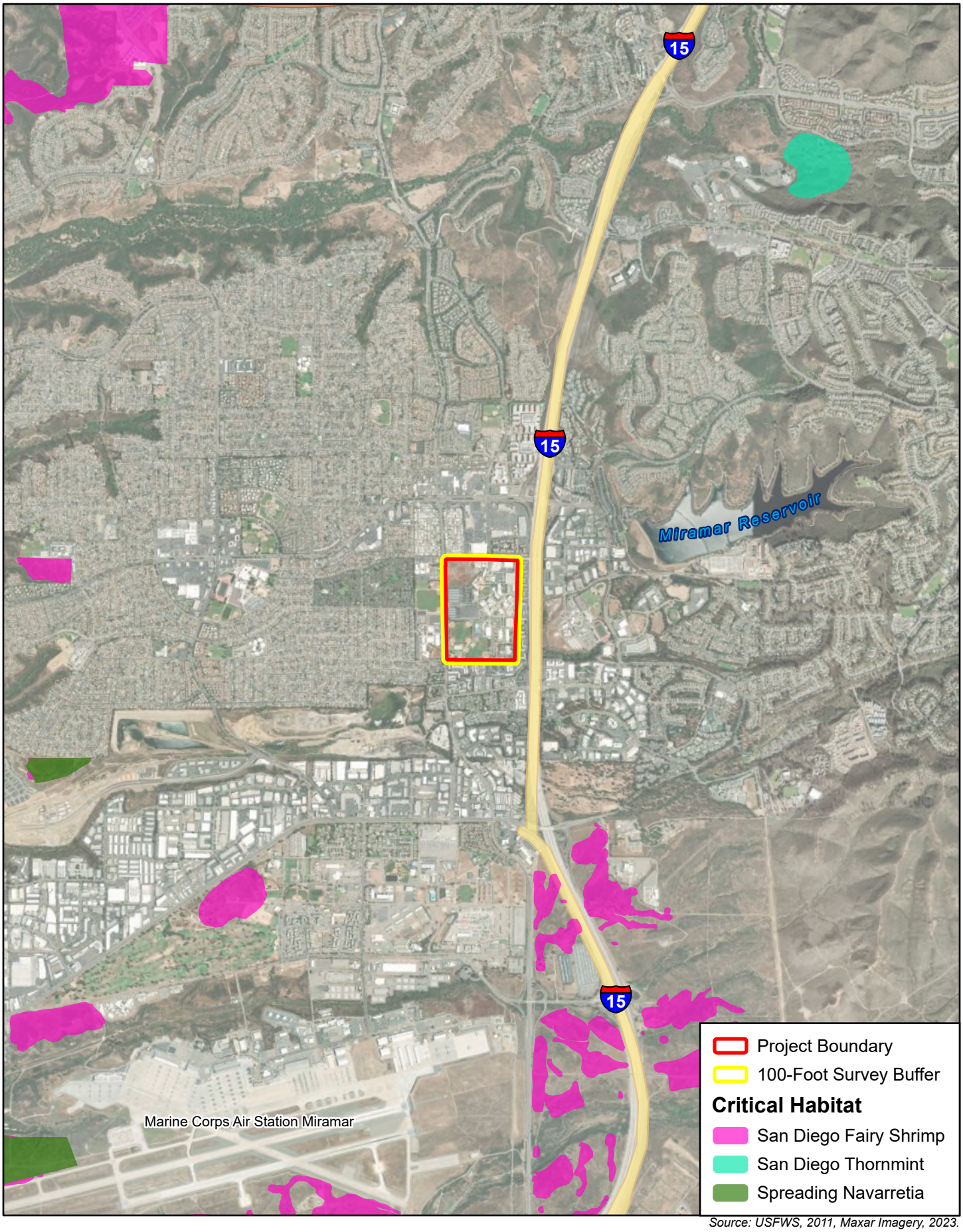
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Figure 7

Historical Species with Potential to Occur

Miramar College PEIR



Source: USFWS, 2011, Maxar Imagery, 2023.

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Figure 8

Critical Habitat

Miramar College PEIR

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Source: Maxar Imagery, 2023.

Harris & Associates

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Figure 9

Aquatic Resources

Miramar College PEIR

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Attachment 2. Photographic Log

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Photograph 1: East-facing view of the Miramar College campus, showing developed walkways and ornamental plantings.



Photograph 2: Northwest-facing view of the Miramar College campus, showing facility buildings and ornamental plantings.



Photograph 3: Southwest-facing view of a retention basin within the vernal pool preserve in the northwestern portion of the survey area.



Photograph 4: Northwest-facing view of Diegan coastal sage scrub and non-native grassland within the vernal pool preserve in the northwestern portion of the survey area, showing deerweed (*Acmispon glaber*) in the foreground and non-native grasses in the background.



Photograph 5: Southwest-facing view of non-native grassland within the vernal pool preserve in the northwestern portion of the survey area, showing wall barley (*Hordeum murinum*) and bromes (*Bromus* spp.).



Photograph 6: North-facing view of vernal pools within the vernal pool preserve in the northwestern portion of the survey area, showing dwarf woolly-marbles (*Psilocarphus brevissimus* var. *brevissimus*) within the pool basin and non-native grasses surrounding the pool.



Photograph 7: South-facing view of a non-native riparian channel within the vernal pool preserve in the northwestern portion of the survey area, showing Goodding's black willow (*Salix gooddingii*) and purple pampas grass (*Cortaderia jubata*).



Photograph 8: Southeast-facing view of a culvert draining into the non-native riparian channel within the vernal pool preserve in the northwestern portion of the survey area.



Photograph 9: North-facing view of a non-native riparian channel within the vernal pool preserve in the northwestern portion of the survey area, showing Goodding's black willow and non-native grasses within the channel.



Photograph 10: Southwest-facing view of Diegan coastal sage scrub and non-native grassland within the vernal pool preserve in the northwestern portion of the survey area, showing deerweed and California buckwheat (*Eriogonum fasciculatum*).



Photograph 11: Southwest-facing view of Diegan coastal sage scrub and non-native grassland within the vernal pool preserve in the northwestern portion of the survey area, showing non-native grasses and forbs in the foreground and laurel sumac (*Malosma laurina*) and California buckwheat in the background.



Photograph 12: Northwest-facing view of non-native grassland within the vernal pool preserve in the northwestern portion of the survey area, showing wall barely and giant wildrye (*Elymus condensatus*).

Attachment 3. Plant Species Observed

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Attachment 3. Plant Species Observed

	Scientific Name	Common Name	Special Status
	EUDICOTS		
	Anacardiaceae - Sumac Or Cashe		
	Malosma laurina	Laurel sumac	
	Rhus integrifolia	Lemonade berry	
	Asteraceae - Sunflower family		
	Artemisia californica	California sagebrush	
	Baccharis sarothroides	Broom baccharis	
*	*Centaurea melitensis*	Tocalote	
*	*Cotula coronopifolia*	Brass-buttons	
	Deinandra fasciculata	Fascicled tarplant	
	Encelia californica	California encelia	
*	*Hedypnois cretica*	Crete weed	
*	*Lactuca serriola*	Prickly lettuce	
*	*Logfia gallica*	French cottonrose	
	Microseris douglasii	Douglas' silverpuffs	
	Pseudognaphalium biolettii	Bi-color everlasting	
	Psilocarphus brevissimus var. brevissimus	Dwarf woolly-marbles	
	Bignoniaceae - Bignonia family		
*	*Jacaranda mimosifolia*	Blue jacaranda	
	Boraginaceae - Borage family		
	Amsinckia menziesii	Menzies's fiddleneck	
	Plagiobothrys acanthocarpus	Adobe popcornflower	
	Brassicaceae - Mustard family		
*	*Brassica nigra*	Black mustard	
*	*Brassica tournefortii*	Sahara mustard	
*	*Hirschfeldia incana*	Shortpod mustard	
	Lepidium nitidum	Shining pepper-grass	
	Cactaceae - Cactus family		
	Opuntia engelmannii var. engelmannii	Engelmann prickly pear	
	Opuntia oricola	Chaparral prickly pear	
	Crassulaceae - Stonecrop family		
	Crassula aquatica	Water pygmyweed	
	Crassula connata	Pygmyweed	

	Scientific Name	Common Name	Special Status
	Euphorbiaceae - Spurge family		
*	*Euphorbia maculata*	Spotted spurge	
	Fabaceae - Legume family		
*	*Acacia retinodes*	Everblooming wattle	
*	*Acacia saligna*	Golden wreath wattle	
	Acmispon glaber	Deerweed	
	Cercis occidentalis	Western redbud	
	Lupinus sp.	Lupine	
*	*Melilotus indicus*	Indian sweetclover	
	Geraniaceae - Geranium family		
*	*Erodium botrys*	Longbeak filaree	
*	*Geranium dissectum*	Cutleaf geranium	
	Lamiaceae - Mint family		
	Salvia apiana	White sage	
	Salvia mellifera	Black sage	
	Linaceae - Flax family		
*	*Linum usitatissimum*	Common flax	
	Lythraceae - Loosestrife family		
*	*Lythrum hyssopifolia*	Grass Poly	
	Malvaceae - Mallow family		
*	*Malva parviflora*	Cheeseweed	
	Myrsinaceae - Myrsine family		
*	*Anagallis arvensis*	Scarlet pimpernel	
	Myrtaceae - Myrtle family		
*	*Eucalyptus camaldulensis*	Red gum	
	Onagraceae - Evening Primrose f		
*	*Oenothera speciosa*	Beautiful evening primrose	
	Papaveraceae - Poppy family		
	Eschscholzia californica	California poppy	
	Plantaginaceae - Plantain family		
	Callitriche marginata	Winged water-starwort	
	Polygonaceae - Buckwheat famil		
	Eriogonum fasciculatum	California buckwheat	
*	*Rumex crispus*	Curly dock	
	Rosaceae - Rose family		
*	*Rhaphiolepis indica*	Indian hawthorn	

	Scientific Name	Common Name	Special Status
	Salicaceae - Willow family		
	Populus fremontii ssp. fremontii	Fremont cottonwood	
	Salix gooddingii	Goodding's black willow	
	Simaroubaceae - Quassia Or Sim		
*	*Ailanthus altissima*	Tree of heaven	
	Solanaceae - Nightshade family		
	Datura wrightii	Wright's jimsonweed	
*	*Nicotiana glauca*	Tree tobacco	
	Tamaricaceae - Tamarisk family		
*	*Tamarix ramosissima*	Hairy tamarix	
	Ulmaceae - Elm family		
*	*Ulmus parvifolia*	Chinese elm	
	Verbenaceae - Vervain family		
*	*Lantana sp.*	Lantana	
	MONOCOTS		
	Agavaceae - Century Plant family		
*	*Agave attenuata*	Fox tail agave	
	Arecaceae - Palm family		
*	*Phoenix canariensis*	Canary Island palm	
	Asphodelaceae - Asphodel family		
*	*Asphodelus fistulosus*	Onionweed	
	Iridaceae - Iris family		
	Sisyrinchium bellum	Lovely blue-eyed-grass	
	Juncaceae - Rush family		
	Juncus bufonius	Toad rush	
	Poaceae - Grass family		
*	*Avena fatua*	Wild oat	
*	*Bromus diandrus*	Ripgut brome	
*	*Bromus hordeaceus*	Soft brome	
*	*Bromus madritensis ssp. rubens*	Red brome	
*	*Cortaderia jubata*	Purple pampas grass	
	Elymus condensatus	Giant wildrye	
*	*Festuca perennis*	Rye grass	
*	*Hordeum murinum*	Wall barley	
*	*Lamarckia aurea*	Goldentop grass	
	Muhlenbergia rigens	Deer grass	

	Scientific Name	Common Name	Special Status
*	*Pennisetum setaceum*	African fountain grass	
*	*Polypogon monspeliensis*	Rabbit foot beard grass	
	Themidaceae - Brodiaea family		
	Dichelostemma capitatum	Blue dicks	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened

CRPR – California Rare Plant Rank
1A. Presumed extinct in California and elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extinct in California, more common elsewhere
2B. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list

Threat Ranks
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Attachment 4. Wildlife Species Observed

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Attachment 4. Wildlife Species Observed

	Scientific Name	Common Name	Special Status
	INVERTEBRATES		
	Moths, Skippers and Butterflies		
	Apidae - Honeybee and Bumblebee Family		
	Bombus vosnesenskii	Yellow-faced Bublebee	
	VERTEBRATES		
	Birds		
	Accipitridae - Hawk Family		
	Buteo jamaicensis	Red-tailed Hawk	
	Laridae - Gull and Tern Family		
	Larus sp.	Gull	
	Columbidae - Pigeon and Dove Family		
*	*Streptopelia decaocto*	Eurasian Collared-Dove	
	Zenaida macroura	Mourning Dove	
	Apodidae - Swift Family		
	Aeronautes saxatalis	White-throated Swift	
	Trochilidae - Hummingbird Family		
	Calypte anna	Anna's Hummingbird	
	Selasphorus sasin	Allen's Hummingbird	
	Picidae - Woodpecker Family		
	Picoides nuttallii	Nuttall's Woodpecker	
	Falconidae - Falcon Family		
	Falco sparverius	American Kestrel	
	Tyrannidae - Tyrant Flycatcher Family		
	Sayornis nigricans	Black Phoebe	
	Sayornis phoebe	Eastern Phoebe	
	Tyrannus vociferans	Cassin's Kingbird	
	Corvidae - Jay and Crow Family		
	Corvus brachyrhynchos	American Crow	
	Corvus corax	Common Raven	
	Hirundinidae - Swallow Family		
	Petrochelidon pyrrhonota	Cliff Swallow	
	Aegithalidae - Bushtit Family		
	Psaltriparus minimus	Bushtit	

Scientific Name	Common Name	Special Status
Mimidae - Thrasher Family		
Mimus polyglottos	Northern Mockingbird	
Parulidae - Wood-Warbler Family		
Cardellina pusilla	Wilson's Warbler	
Emberizidae - Sparrow Family		
Pipilo maculatus	Spotted Towhee	
Melospiza melodia	Song Sparrow	
Icteridae - Blackbird, Cowbird and Oriole Family		
Icterus cucullatus	Hooded Oriole	
Fringillidae - Finch Family		
Haemorhous mexicanus	House Finch	
Carduelis psaltria	Lesser Goldfinch	
Mammals		
Leporidae - Hare and Rabbit Family		
Sylvilagus audubonii	Desert Cottontail	
Sciuridae - Squirrel Family		
Spermophilus beecheyi	California Ground Squirrel	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

Appendix D. Cultural Resources Technical Report

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Cultural Resources Technical Report

San Diego Miramar College Master Plan Project

July 2026

Prepared for:

SAN DIEGO
Community College District

Operations, Enterprise Services, and Facilities
3375 Camino Del Rio South, Suite 310
San Diego, California 92108

Prepared by:

Harris & Associates

2375 Northside Drive, Suite 125
San Diego, California 92108

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National Archaeological Database Information

Authors:	Donna Beddow, RPA, and Rocky Shane Ciarmoli
Firm:	Harris & Associates 2375 Northside Drive, Suite 125 San Diego, California 92108 (619) 481-5011
Client/Project Proponent:	San Diego Community College District Operations, Enterprise Services, and Facilities Lance R. Lareau, District Architect 3375 Camino Del Rio South, Suite 310 San Diego, California 92108
Report Date:	July 2026
Report Title:	Cultural Resources Technical Report – San Diego Miramar College Master Plan Project
Type of Study:	Intensive Pedestrian/Phase I
New Sites:	None
Updated Sites:	None
USGS Quad:	Poway
Acreage:	114 acres
Key Words:	Negative Survey, CEQA

Abstract

This report represents the results of a cultural resource survey for the San Diego Miramar College Master Plan. The survey was conducted as part of the California Environmental Quality Act (CEQA) evaluation to identify any impacts on cultural resources that could result due to the buildout of campus-wide improvements. No previously recorded archaeological sites are mapped on the project site. Under the current development plan, cultural resources could potentially be impacted in the long-term.

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Confidential Appendix D. Sacred Lands File Search and Tribal Outreach

Acronyms and Abbreviations

AB	Assembly Bill
CEQA	California Environmental Quality Act
CHRIS	California Historic Resources Inventory System
City	City of San Diego
County	County of San Diego
CRHR	California Register of Historical Resources
MLD	most likely descendant
NAHC	Native American Heritage Commission
project	San Diego Miramar College Master Plan Project
USGS	U.S. Geological Survey

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Executive Summary

The San Diego Miramar College Master Plan Project (project or Master Plan) would include campus-wide improvements at Miramar College (project site or campus), at 10440 Black Mountain Road in the Mira Mesa neighborhood of the City of San Diego (City), California. The project site is in Township 14S, Range 02W, Sections 31 and 32, on the Poway U.S. Geological Survey (USGS) quadrangle.

The Master Plan includes long-term and near-term campus-wide improvements to replace aging buildings and enhance campus connectivity. Improvements would consist of the demolition, construction, and renovation of existing buildings and facilities throughout the campus over a period of approximately 20 years. The project would include the demolition of multiple buildings, surface parking lots, and recreational facilities to make way for the construction of new modernized buildings, a parking structure, and upgraded recreational facilities. The project would also renovate and modernize existing buildings and re-orient existing spaces, including pedestrian pathways and on-campus roadways. The English Gallery and Performing Arts Center Building and Early Education Center Building projects are anticipated to be designed and constructed in the near term. No specific timing or phasing is identified for the remaining projects or campus-wide improvements.

This cultural resources technical report consists of an archaeological field survey of the campus. No resources would be impacted due to near-term projects, as buildings/parking lots proposed to be demolished would not meet the 50-year age threshold required to be considered historical, and development would occur within previously developed areas of campus where archaeological sensitivity is low. Long-term projects could potentially impact historical resources that would meet the 50-year age threshold over the next 20 years (specifically Public Safety A-2 Building, Heavy Duty Diesel Technology C-1 Building, English I Building, and the eastern half of Hourglass Field). In addition, a long-term project (specifically the Vernal Pool Community Trail Extension Project), could result in an adverse impact due to the undeveloped nature of the site and the potential for unanticipated discovery of archaeological resources.. To mitigate for impacts, the following measures would be implemented: CUL-1 – Historic Properties Project Impacts Analysis, CUL-2 – Historic American Buildings Survey (HABS) or Historic American Landscapes Survey (HALS) Documentation, CUL-3 – Interpretation/Commemoration, and CUL-4 – Cultural Resources Monitoring Program. With implementation of mitigation measures CUL-1 through CUL-3 for historical resources, impacts would be reduced to the extent feasible; however, impacts would remain significant after mitigation for future projects that do not comply with the Secretary of Interior's Standards. Implementation of mitigation measure CUL-4 would reduce impacts on archaeological resources to less than significant. Harris & Associates' senior archaeologist Donna Beddow, RPA, served as the principal investigator, and Rocky Shane Ciarmoli, archaeologist, conducted the survey. Ms. Beddow meets the Secretary of Interior Professional Standards for Archaeology (Appendix A, Resumes).

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Section 1 Introduction

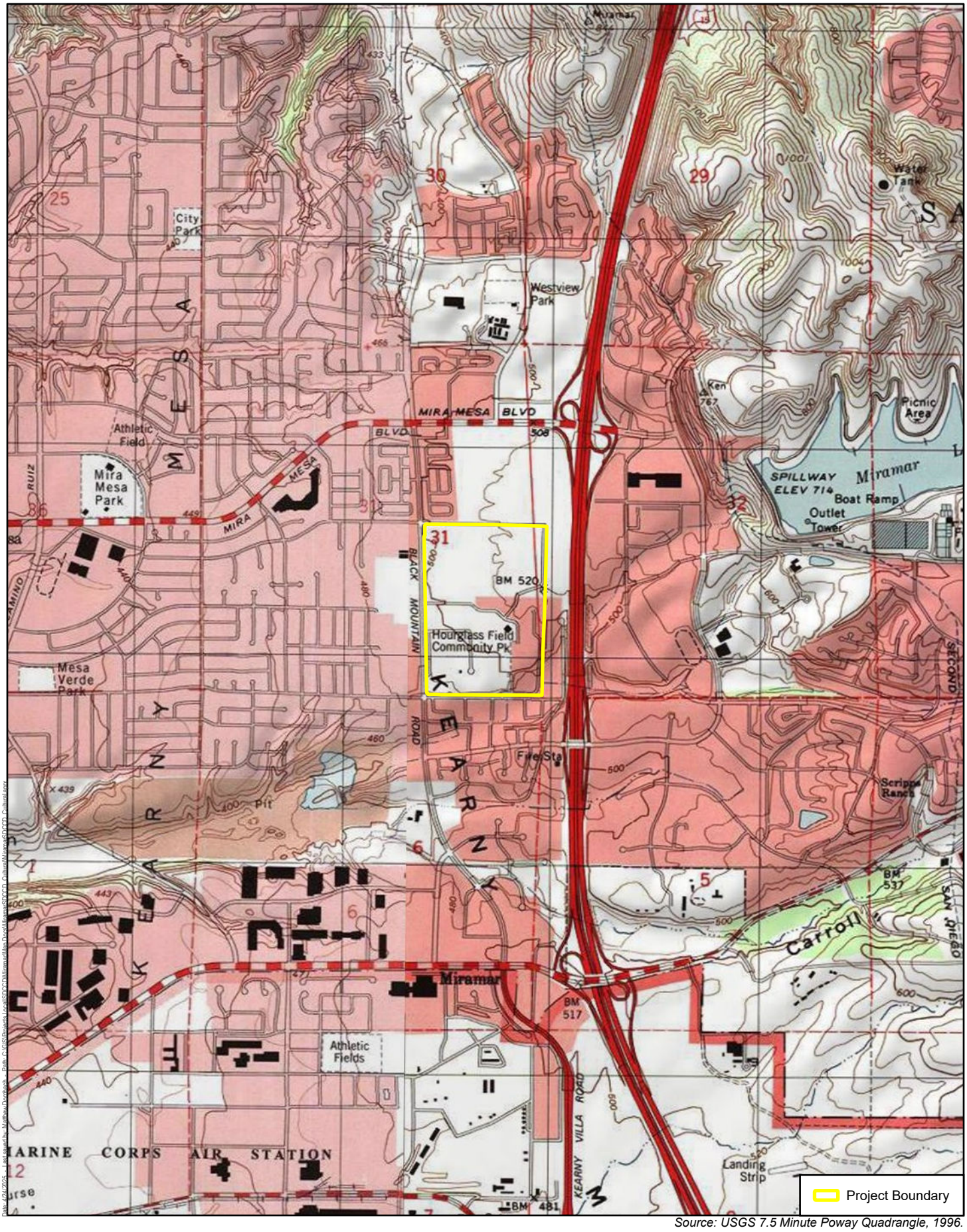
1.1 Project Description

The San Diego Miramar College Master Plan Project (project or Master Plan) includes campus-wide improvements at San Diego Miramar College (project site, Miramar College, or campus), at 10440 Black Mountain Road in the Mira Mesa neighborhood of the City of San Diego (City), California (Figure 1, USGS Topographic Map). The approximately 114-acre campus is west of Interstate 15 and bounded by North and South Campus Drive to the east, Gold Coast Drive to the south, Black Mountain Road to the west, and Hillery Drive to the north (Figure 2, Project Aerial). Photographs documenting the existing conditions of the project site are provided in Appendix B, Photographs.

The Master Plan includes long-term and near-term campus-wide improvements to replace aging buildings and enhance campus connectivity. Improvements would consist of the demolition, construction, and renovation of existing buildings and facilities throughout the campus over a period of approximately 20 years. The project would include the demolition of multiple buildings, surface parking lots, and recreational facilities to make way for the construction of new modernized buildings, a parking structure, and upgraded recreational facilities. The project would also renovate and modernize existing buildings and re-orient existing spaces, including pedestrian pathways and on-campus roadways. The English Gallery and Performing Arts Center Building and Early Education Center Building projects are anticipated to be designed and constructed in the near term. No specific timing or phasing is identified for the remaining projects or campus-wide improvements. The project components would be within the current campus boundaries (Figure 3, Master Plan Project Locations). Specific long-term projects identified for development under the Master Plan include the following:

- Public Safety A-2 Building Modernization project
- Heavy Duty Diesel Technology C-1 Building project
- Welcome and Multicultural Center Building project
- Parking Structure with Athletic Facilities project
- Science and Automotive S-2 Through S-6 Building Modernization project
- Miramar College Driveway Modification project
- Athletics Building and Courts project
- Hourglass Field Modernization project
- STEM Lab and Student Health Center Building project
- North Campus Drive Street Parking project
- Vernal Pool Community Trail Extension project

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Source: USGS 7.5 Minute Poway Quadrangle, 1996.

Harris & Associates

Figure 1

USGS Topographic Map

San Diego Miramar College Master Plan Project

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Source: Maxar Imagery, 2024.

Harris & Associates

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Figure 2

Project Aerial

San Diego Miramar College Master Plan Project

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Campus Boundary

Near-Term Projects

1. English Gallery and Performing Arts Center Building
2. Early Education Center Building

Long-Term Projects

3. Public Safety A-2 Building Modernization
4. Heavy Duty Diesel Technology C-1 Building
5. Welcome and Multicultural Center Building
6. Parking Structure with Athletic Facilities
7. Science and Automotive S-2 through S-6 Buildings Modernization
8. Miramar College Driveway Modification
9. Athletics Building and Courts
10. Hourglass Field Modernization
11. STEM Lab and Student Health Center Building
12. North Campus Drive Street Parking
13. Vernal Pool Community Trail Extension

**Project numbering is informational and does not reflect construction order or priority of projects.*

Source: Vantor Imagery, 2025.

Harris & Associates

N

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Feet

Figure 3

Master Plan Project Locations

San Diego Miramar College Master Plan

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Section 2 Project Setting

2.1 Environmental Setting

2.1.1 Natural Environment

On a regional level, the County of San Diego (County) has a Mediterranean climate, which is characterized by wet winters and dry summers. This is largely because of a semi-permanent high-pressure zone that sits over the Pacific Ocean during much of the year and forms a fog belt (marine layer). The project site is generally in the Peninsular Ranges. Generalized climate in the region is dry, subhumid mesothermal, with warm, dry summers and cold, moist winters, which pushes the growing season to the wet months of the year (late winter to early spring). Annual vegetation often goes dormant during the later summer months until initial rainfall starts in the fall. The rainy season typically lasts from late October through April.

2.1.2 Cultural Setting

2.1.2.1 Prehistoric

Cultural resources are found throughout the County and are reminders of the County's 10,000-year-old historical record. Cultural resources are the tangible or intangible remains or traces left by pre-contact or historical people who inhabited the San Diego region. They encompass both the built (post-1769) and archaeological environments, as well as Traditional Cultural Properties. They are typically in protected areas near water sources and multiple ecoregions and can include Traditional Cultural Places, such as gathering areas, landmarks, and ethnographic locations.

The following provides a brief cultural background of the County and the history of Miramar College.

Paleoindian Period (Pre-5500 BCE)

Several terms are used for the early occupation of the San Diego region: Paleoindian period, Early Archaic period, Initial period, and Scraper Maker period (Moratto 1984). The Paleoindian period dates from 9000 to 5500 BCE (Chartkoff and Chartkoff 1984; Moratto 1984; Rogers 1966; Taylor and Meighan 1978; Warren and True 1961). Early humans have been characterized as an early nomadic, hunting culture whose settlements were located on mesas and ridge tops and in deserts (Erlandson and Colton 1991; Rogers 1966; Wallace 1978; Warren et al. 1961). During this period, inhabitants relied on large game for subsistence (Rogers 1966; Warren et al. 1961) and produced "finely worked blades, spear points, choppers, and scrapers out of fine-grained volcanics" (Carrico 1977). In addition, leaf-shaped knives, foliate to ovoid bifaces, foliate to short-bladed shoulder points, crescents, engraving tools, core hammers, pebble hammers, and cores were part of the tool assemblage (Moratto 1984; Wahoff and Dolan 2000). Pottery and milling stones were missing from the assemblage, confirming the assumption that hunting was an economic focus for the

culture (Moriarty 1967; Warren and True 1961). Because the tool assemblage was similar to desert cultures of the Mojave Desert, it is believed that this culture migrated west from the desert into California (Gallegos 1995; Rogers 1939). However, no single hypothesis is universally accepted. Other hypotheses identify the movement of people into California from the south and north down the coast (Taylor and Meighan 1978; Chartkoff and Chartkoff 1984).

Archaic (8000 BCE–CE 500)

According to Hale et al. (2018), "the more than 1,500-year overlap between the presumed age of Paleoindian occupations and the Archaic period highlights the difficulty in defining a cultural chronology in the San Diego region." The Archaic period is also known as La Jollan, Pauma Complex, and Millingstone Horizon. This period is characterized by the presence of dart points, milling, equipment, scattered hearths, shell middens, and flexed burials (Carrico 1977). Subsistence strategies placed an emphasis on gathering, possibly as a result of environmental change (Wahoff and Dolan 2000; Wallace 1978). The assemblage was composed of milling implements and cobble/core-based tools. The flaked tools do not appear to be as refined as those of the Paleoindian period. Mortuary goods included shell beads and ornaments, projectile points, and milling implements. Wallace (1978) interpreted archaeological sites of this period as an indication of an increase in population and permanence. Site types included coastal shell habitation bases, quarries, resource exploitation, and milling (Gallegos 1995). The sites are typified by an abundance of shellfish remains and are situated near sloughs and lagoons and on the open coast (Carrico 1977; Masters and Gallegos 1997; Moratto 1984; Wallace 1978). An inland manifestation identified as the Pauma complex is known to have existed (True 1958). Unlike the coastal people, this complex occupied "transverse valleys and sheltered canyons of inland San Diego County, ha[d] an emphasis on hunting and gathering, had a greater diversity of tool types, and lacked shellfish remains" (Masters and Gallegos 1997:12).

Similar to the Paleoindian period, controversy surrounds the origins of the Archaic culture. Several hypotheses have been postulated. Kaldenberg (1976) and Moriarty (1967) proposed that the transition from the Paleoindian to the Archaic culture was an in-situ adaptation. In contrast, Warren et al. (1961) viewed this transition as a migration from the desert to the coast due to the adverse environmental condition of the Altithermal. Taylor and Meighan (1978:36) did not take a single position regarding the transition to the Archaic culture but, rather, incorporated all the hypotheses as identified below:

> The artifact inventory and cultural activities argue strongly that this stage began in the desert inland and spread toward the Pacific Coast, reaching it about 8500 years ago. There is no evidence to show whether the Milling Stone Stage involved movement of the people or a conquest of earlier residents; perhaps the early hunters simply adopted this way of life as game animals became scarce.

The population of this period focused on lagoonal resources and moved up and down the river valleys exploiting various inland and coastal resources (Masters and Gallegos 1997).

Late Prehistoric (CE 500–1769)

The Late Prehistoric period is an antecedent to Spanish contact (CE 1000–1769). It was a "time of cultural transformations brought about by trait diffusion, immigration, and in-situ adaptation to environmental changes" (Moratto 1984:153). Subsistence strategies involved a focus on terrestrial collection and hunting (Christenson 1992); however, shellfish and other maritime resources were also used. Settlement included large villages near permanent water sources, temporary campsites, quarries, and resource exploitation sites. Small triangular points, pottery, and Obsidian Butte obsidian are characteristic of this period (Christenson 1992; Masters and Gallegos 1997; True 1966, 1970). Cremations replaced flexed inhumations, and mortuary goods became more elaborate (Wallace 1955). Cremations are believed to have been introduced into the area during the Late Prehistoric period and are the result of Shoshonean intrusion (1500 BP) from the deserts (True 1966) into northern San Diego County. However, in the southern part of the County, this practice has been attributed to a "Colorado River origin that may have had an influence as far reaching as the Hohokam [current day Pima people and Tohono O'odham Nation] in southwestern Arizona" (True 1970:58). Kaldenberg (1976:67) had a different opinion on the origin and timing of the entrance of cremation practices into the region. He noted that the practice of cremation was introduced at the terminus of the Archaic culture (3000 BP) with the "migration of Yuman people into the San Diego coastal region." By 2000 BP, inhumations were replaced by cremations (Kaldenberg 1976).

Two complexes (San Luis Rey and Cuyamaca) are identified with the Late Prehistoric period. True (1966) believed that the San Luis Rey complex was a precursor to the ethnographic Luiseño. Similarly, he suggested that the Cuyamaca complex was the predecessor to the ethnographic Kumeyaay. Through the examination of both geographic regions, True identified specific characteristics unique to each; however, he noted that, although geographically similar, these two cultures were distinctly different.

2.1.2.2 Ethnohistoric Period (Post-CE 1769)

The Ethnohistoric period begins with the first permanent European settlements. Early Ethnohistoric accounts and mission documents have been used to reconstruct this period (Hale et al. 2018). Florence Shipek (1993) delineated the boundaries between the Luiseño and the Kumeyaay as follows:

> In 1769, the Kumeyaay national territory started at the coast about 100 miles south of the Mexican border (below Santo Tomas), thence north to the coast at the drainage divide south of the San Luis Rey River including its tributaries. Using the U.S. Geological Survey topographic maps, the boundary with the Luiseño then follows that divide inland. The

boundary continues on the divide separating Valley Center from Escondido and then up along Bear Ridge to the 2240 contour line and then north across the divide between Valley Center and Woods Valley up to the 1880-foot peak, then curving around east along the divide above Woods Valley.

The Kumeyaay (also known as Ipai, Tipai, Diegueño, and Kamia) lived in small villages, or rancherias, and would inhabit multiple locations throughout the year. According to Cline (1984), the typical settlement included two or more seasonal villages with temporary camps farther away from the main central villages. Hunting and gathering were the main economic focus, consisting of small game, acorns, grass seeds, and other plant resources. Similar to the Prehistoric period, a wide range of tools (chipped and ground stone) that were made from locally available materials were used. Exotic materials, such as obsidian and chert, were imported from the deserts to the north and east. In addition to lithic tools, the Kumeyaay produced baskets and pottery.

2.1.2.3 Historical Period (Post-CE 1542)

The Historical period can be divided into three phases: Spanish, Mexican, and American. Each phase is identified with a change in political power. Common goals in each phase included land gain, assimilation of the native population, and the attainment of wealth. However, these periods were dissimilar in the rationale behind these goals. Rationale included defense (Spain), independence and secularization (Mexico), and expansion and economics (United States). Assimilation of Native Californians was a desire of each government that came to power; however, the greatest misfortune of this period was the large decline in Native American populations (Phillips 1981).

Spanish Period (CE 1769–1821)

Although the first Spanish contact occurred in 1542, it was not until 1769 that the first permanent settlement was established. The Spanish period was a time of European expansionism and is typically identified with the mission system. In addition, presidios (military defense) and pueblos (city government) played an important role in the structuring of the community (Campbell 1977). The mission system was the institution designated for the assimilation and exploitation of native people (Campbell 1977; Cline 1979; Jackson and Castillo 1995; Phillips 1981). Jackson and Castillo (1995:6) identified this exploitation as an extension of the "sixteenth-century policy of congregacion/reduction." In contrast, Costo (1987) noted that the transference of the Spanish Inquisition (originally established in 1478) to the New World that was the mechanism for this exploitation because the Inquisition contained economic and religious incentives. The Spanish stronghold in California declined with Spain's loss of the Napoleonic Wars (1803–1815), which eliminated funding to the mission.

Mexican Period (CE 1821–1859)

In 1821, Mexican independence from Spain occurred, and in 1833, Mexico secularized the missions. After secularization, large tracts of land were granted to private citizens. "The secularization of the missions during the Mexican period is usually regarded as a watershed in California History because it resulted in the replacement of one Hispanic institution by another—the rancho for the mission" (Phillips 1981:33). Like the mission, the rancho became the institution of native exploitation. This period experienced an increase in cattle ranching and the hide and tallow trade (Gallegos 1995; Wahoff and Dolan 2000). The passage of the Treaty of Guadalupe Hidalgo that ended the Mexican-American War in 1848 was the final event that culminated the Mexican period in California.

American Period (Post-CE 1850)

The concept of a two-ocean economy and the California Gold Rush were the impetus that brought about the annexation of California (1850) to the United States. A large number of immigrants entered California with the discovery of gold and the availability of free land with the passage of the Homestead Act (1863). This population increase caused the displacement of Native Californians and brought about a deterioration in their rituals and traditions (Carrico 1986; Gallegos 1995). During this period, the ranchos experienced a decline primarily in response to their inability to validate land ownership as a result of the California Land Claims Act of 1851. "With the discovery of gold, the building of the transcontinental railroad, and the development of crops and cities, people in massive numbers from all parts of the world began to inhabit the region" (Phillips 1981: editors' introduction).

2.1.2.4 Miramar College

The area that became Miramar College is south of the Rancho Santa Maria de Los Peñasquitos land grant but was not within a Mexican or Spanish land grant (ArcGIS 2024). The area remained largely undeveloped until the 1940s when the area was used as a test area and emergency landing field by the U.S. Department of Defense. The Linda Vista Valley Auxiliary Field (also known as Hourglass Field because of the runways' layout) spanned approximately 214 acres. The field was also used as a practice bombing range. The facility was relinquished to civilian aircraft use after World War II (Stevens 2011).

The Linda Vista Valley Auxiliary Field/Hourglass Field was used by car clubs and other groups until the early 1960s, when the Navy transferred the land at no cost to the San Diego Unified School District, which at the time managed community colleges (Mira Mesa Recreation Council n.d.). The transfer came with the stipulation that the land be developed for educational purposes, requiring that a school be constructed on the site. Miramar College opened in 1969 as the Miramar Regional Occupational Training Center for police and firefighter training. Since then, Miramar

College has expanded into a comprehensive community college offering transfer and expanded career training programs.

2.1.3 Previous Investigations

Staff conducted a records search for the project site and surrounding area using the California Historic Resources Inventory System (CHRIS) (Confidential Appendix C, CHRIS Background Data). Ninety-nine studies have been conducted within a 1-mile radius of the project site, 13 of which overlap with the current project footprint (Table 1, Previous Studies Within a 1-Mile Radius of the Project Site). The 13 previously conducted studies on the project site include survey and monitoring reports, EIRs, and four documents related to the 2022 Mira Mesa Community Plan.

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-00110	An Archaeological Reconnaissance of Abram's Valle Mar Development in Mira Mesa	Archaeological Systems Management	1978
SD-00380	Archaeological/Historic Survey of the Scripps Mesa Verde Project	Richard Carrico	1978
SD-00453	Archaeological Survey Report for a Proposed HOV Lane Project on Interstate 15 (11-SD-15 P.M. R11.4-M19.9) 11206-189560 11206-189540 11208-189550	Joyce M. Corum	1981
SD-00468	An Archaeological Survey Report for a Portion of Interstate 15 and the Proposed Miramar Road Interchange (11-SD-15, P.M. R13.6-M14.7) 11206-152311	Joyce M. Corum	1977
SD-00526	Archaeological Survey Report for a Proposed Interchange at Carroll Canyon Road and Interstate 15 11-SD-15 P.M. R13.8/14.4	Sue Ann Cupples	1976
SD-00539	An Archaeological Survey Report for a Park and Ride Lot at 11-SD-15 p.m. 15.8	Sue Ann Cupples	1976
SD-00565	Archaeological Survey of Several Highway Route Alternatives in Kearny Mesa, San Diego, California	Charles Carillo and Karen Crotteau	1981
SD-00644	Archaeological Investigation at Scripps Western San Diego, California	Douglas Flower, Linda Roth, and Darcy Ike	1980
SD-00735	An Archaeological Impact Report on the Mira Mesa Community Park and Recreation Center	Russell L. Kaldenberg	1975
SD-01015	Cultural Resource Survey of the Leeds Parcel, San Diego, California	Dennis Gallegos, Andrew Pigniolo, and Richard Carrico	1987
SD-01040	Cultural Resource Survey and Testing of SDi-5380 for the Shappel-Mesa Del Sol Project	Dennis Gallegos, Andrew Pigniolo, and Richard Carrico	1987
SD-01305	The Archaeological Resources of Mira Mesa Sports Village	Richard H. Norwood	1977
SD-01331	Cultural Resource Survey and Evaluation of the Mira Mesa East and Otay Mesa South Alternatives for Navy Family Housing, San Diego County, California	Andrew Pigniolo	1989
SD-01503	Historic Architectural Study of the Meanley Residence, Scripps Ranch	Stephen Van Wormer	1987
SD-01681	Archaeological Excavations at Site SDM-W-2666, Mesa del Sol Project Mira Mesa, California	Brian F. Smith	1980

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-01765	An Archaeological Reconnaissance of the Proposed Widening of Pomerado Road Between Interstate 15 and Scripps Ranch Boulevard	James Robert Moriarty III and Keith Polan	1981
SD-01786	Archaeological Survey Report on the "Scripps Westview" Property Located in the Mira Mesa Area of the County of San Diego	Scientific Resources Surveys, Inc.	1979
SD-02499	Cultural Resources Survey and Significance Testing of SDI-11954, SDI-11955, SDI-7872 for the Scripps Ranch North Phase II San Diego	Frank Ritz	1990
SD-02663	Environmental Assessment for Archaeological Resources of the NAS Miramar Terminal Radar Approach Control Facility, San Diego	Brian F. Smith	1990
SD-02887	Draft Environmental Impact Report: Treena Mesa Planned Industrial Development	City of San Diego	1994
SD-02916	**Cultural Resources Assessment of AT&T's Proposed San Bernardino to San Diego Fiber Optic Cable, San Bernardino, Riverside, and San Diego Counties, California**	**Peak & Associates, Inc.**	**1990**
SD-02917	An Archaeological Reconnaissance Survey of Miramar Ranch North	Deborah R. Connors and Charles Bull	1979
SD-02962	Cultural Resources Technical Report for Peñasquitos Trunk Sewer Relief Project, City of San Diego, California	Richard L. Carrico	1994
SD-03237	Peñasquitos Relief Trunk Sewer City Council Approval	Lawrence C. Monserrate	1994
SD-03365	Cultural Resource Investigation Wuest Property Miramar Ranch North City of San Diego San Diego County, California	Nancy A. Whitney-Desaultes	1989
SD-03381	Historical Assessment of Mission Hills Block 53 & the Buildings Located at 719 and 727 Fort Stockton Dr, 4020-4024, 4026-4032, & 4046 Eagle St, 702, 724, & 726 Washington St, & 4021, 4021 ½, & 4029 Falson St	Brian K. Glenn	1993
SD-03421	**Cultural Resource Report for the Mira Mesa Market Center Project**	**John Cook**	**1997**
SD-03454	**Draft EIR for the Mira Mesa Market Center**	**City of San Diego**	**1998**
SD-03720	Historical/Archaeological Survey Report for the Water Repurification Pipeline and Advanced Water Treatment Facility, City of San Diego, California	Adella B. Schroth, Dennis R. Gallegos, Peti McHenry, and Nina Harris	1996
SD-04222	Archaeology Report Proposed Mitralani Park	Keith Polan	1979
SD-04241	An Archaeological Reconnaissance of Abram's Valle Mar Development in Mira Mesa	Archaeological Management Systems, Inc.	1978
SD-04331	Cultural Resources Survey & Testing of SDI-5380 for the Shappel Mesa Del Sol Project	Westec	1987
SD-04355	Dayle Cheever	Dayle Cheever	1987
SD-04628	Environmental Impact Report Scripps Westview	PRC Toups Corporation	1979
SD-04819	Historical Overview to Lane Use an[d] Development within the Camp Elliott Area	Richard Carrico	1999
SD-055047	Archaeological Survey Report for a Proposed HOV Lane Project on Interstate 15	Caltrans	1981
SD-05060	Draft Environmental Impact Report for Miramar Water Treatment Plat Upgrade and Expansion	City of San Diego	2001

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-05064	Historical Resources Inventory for the Miramar Water Treatment Plat Upgrade and Expansion, San Diego, California	James H. Cleland	2000
SD-05076	Historical Resources Inventory for the Miramar Distribution System Improvements, San Diego, California	James H. Cleland	2000
SD-05746	DEIR for Treena Mesa Planned Industrial Development	City of San Diego	1994
SD-06039	Cultural Resources Investigation Wuest Property Miramar Ranch North, City of San Diego, San Diego County, California	Scientific Resources Survey, Inc.	1989
SD-06066	EIR for Noah City Water-Reclamation System Project	City of San Diego	2001
SD-06272	Canyon Creek Industrial Park Cultural Resources Study	Jerry Schaefer, PhD	1998
SD-06716	An Archaeology Assessment of Lusk Industrial Park	Charles S. Bull	1978
SD-06877	NAS Miramar Realignment—Historic Resources	Cherilyn Widell	1995
SD-07215	Public Notice of Proposed Mitigated Negative Declaration West More Road Improvement, Carroll School Park	City of San Diego	1999
SD-07404	Cultural Resources Survey for the Parkee-Westview Project and the Proposed Samoa Avenue Road Improvement Corridor, San Diego, California	Dayle Cheever, Richard Carrico, and Dennis Gallegos	1987
SD-07854	Cultural Resources Assessment Cingular Wireless Facility No. SD 652-02, San Diego, CA	Curt Duke	2001
SD-07866	Archaeological/Historical Survey of the Scripps Mesa Vista Project	Richard Carrico	1978
SD-08706	Archaeological Investigation at Scripps Westview, San Diego, California, SDI-7091-3	Douglas Flower, Darcy Ike, Linda Roth	1980
SD-09040	Cultural Resources Assessment for Cingular Wireless Facility SD844-01, San Diego County, California	Carolyn Kyle	2002
SD-09111	**Cultural Resources Survey for the San Diego Miramar College Library/Learning Resource Center Project City of San Diego, California**	**Caroyn Kyle**	**2004**
SD-09230	Post-Fire Archaeological Survey of 9635 Acres on Marine Corps Air Station Miramar, San Diego, California	Barb Giacomini and Chase Caudell	2004
SD-09381	National Register Evaluation of CA-SDI-9127H, Recreational Vehicle Campground (P-045), Marine Corps Air Station, Miramar, San Diego, California	Mary Robbins-Wade	2003
SD-9397	Archaeological Site Evaluations in Support for Marine Corps Air Station Miramar, San Diego County, California	Susan M. Hector, Sinead Hi Ghabhlain, Mark S, Becker and Ken Moslak	2004
SD-09516	The Cemeteries and Gravestones of San Diego County: An Archaeological Study	David Caterino	2005
SD-10373	Cultural Resources Technical Report Scripps Lake Culvert Repair, the City of San Diego, FEMA-1585-DR-CA, P#688	Joanne S. Grant	2006
SD-10551	**Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California**	**Cindy Arrington**	**2006**
SD-10704	NAS Miramar, Initial Cultural Resources Study Archaeology/History/Architecture	Douglas Flower and Linda Roth	1981

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-11460	A Programmatic Approach for National Register Eligibility Determinations of Prehistoric Sites within the Southern Coast Archaeological Region, California	Seetha N. Reedy	2007
SD-11482	**Historic Property Survey Report – Mira Mesa/Scripps Ranch Direct Access Ramp Project**	**Carolyn E. Kyle**	**2007**
SD-11823	Cultural Resources Technical Report for the San Diego Vegetation Management Project	Maureen S. Kick	2007
SD-11826	Archaeological Resources Analysis for the Master Stormwater System Maintenance Program, San Diego, California Project No 42891	Mary Robbins-Wade	2008
SD-11902	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Facility Candidate SD07044 (Capricorn Way Row) Intersection of Capricorn Way and Bootes Street, San Diego, San Diego County, California	Wayne H. Bonner and Sarah Williams	2008
SD-11903	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SD07074A (Lipscomb Drive), Lipscomb Drive and Gold Coast Drive, San Diego, San Diego County, California	Wayne H. Bonner and Sarah Williams	2008
SD-11976	Draft Cultural Resources Inventory Survey Naval Air Station Miramar, California	Matt Bischoff, William Manley, and Martin Rosen	1995
SD-12179	**Final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact of the Mira Mesa/Scripps Ranch Direct Access Ramp Project**	**Caltrans**	**2009**
SD-12200	Draft Environmental Impact Report for the Master Stormwater System Maintenance Program (MSWSMP)	City of San Diego	2009
SD-12700	Final Inventory Report of the Cultural Resources within the Approved San Diego Gas & Electric Sunrise Powerlink Final Environmentally Superior Southern Route, San Diego and Imperial Counties, California	Arleen Herbst-Garcia, David Iversen, Don Laylander, and Brian Williams	2010
SD-13006	Master Storm Water Maintenance Program – Draft Recirculated Program Environmental Impact Report	City of San Diego	2011
SD-13522	Branch Relocation 9494 Black Mountain Road, Suite E, San Diego	State Bank of India	
SD-13996	Draft Results of Historical Resources Survey of the Scripps Ranch Pump Station Project, San Diego, California	Carmen Zepeda-Herman	2012
SD-14095	Final Integrated Cultural Resources Management Plan Update for Marine Corps Air Station Miramar	ASM Affiliates, Inc.	2011
SD-14141	**Archaeological Survey Report, Mira Mesa Bus Rapid Transit Station, San Diego, California (Affinis Job No. 1776)**	**Mary Robbins-Wade**	**2003**
SD-14369	Carroll Canyon Commercial Center Draft Environmental Impact Report	City of San Diego	2013
SD-14788	Cultural Resources Records Search and Site Survey AT&T Site SD0263 Gold Coast 9230 Gold Coast Drive, San Diego, San Diego County, California, 92126	Shannon Loftus	2013
SD-15076	Direct APE Historic Architectural Assessment for T-Mobile West, LLC Candidate SD069211A (SD211 Pacific Bell Building) 9059 Mira Mesa Boulevard, San Diego, San Diego County, California	Wayne Bonner and Kathleen A. Crawford	2014

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-15090	Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate SD069211A (SD211 Pacific Bell Building) 9059 Mira Mesa Boulevard, San Diego, San Diego County, California	Wayne H. Bonner, Sarah A. Williams, and Kathleen A. Crawford	2014
SD-15402	Archaeological Survey for the SDG&E CMP TL669 Pole Replacement Z96079, Mira Mesa, San Diego County, California (SDG&E eTS #29959)	Susan M. Hector and Joshua A. Tansey	2015
SD-15528	A Class III Historic Resource Study for the Miramar Clearwell Improvements Project, San Diego, California	Tracy A. Stropes and Brian F. Smith	2015
SD-15768	Cultural Resources Assessment Class I Inventory, Verizon Wireless Services, Miramar Gate Facility, City of San Diego, San Diego County, California	Phil Fulton	2014
SD-15851	Cultural Resources Records Search and Site Visit Results for Verizon Wireless Candidate 'Marbury Mesa,' 9050 Mira Mesa Boulevard, San Diego, San Diego County, California	Carrie D. Wills and Sarah A. Williams	2014
SD-15852	Cultural Resources Records Search and Site Visit Results for Verizon Wireless Candidate 'North Mollison,' 880 North Mollison Avenue, El Cajon, San Diego County, California	Carrie D. Wills and Sarah A. Williams	2014
SD-16088	Cultural Resources Records Search and Site Survey AT&T Site NS0619 Miralani Business Park LTE 2C 8680 Miralani Drive, San Diego, San Diego County, California 92131 CASPR#3601581967	Shannon L. Loftus	2014
SD-16555	Historic Biulding/Structure Evaluation Supplement, Marine Corps Air Station Miramar, San Diego, California	Shannon Davis and Jennifer Gorman	2015
SD-16852	Cultural Resources Survey Miramar College/Ensite #26853 (159976) 9230 Gold Coast Drive, San Diego, San Diego County, California 92126 EBI Project No. 6115000879	Don C. Perez	2015
SD-17233	San Diego 129 Project, San Diego County, California (BCR Consulting Project No. SYN1622)	David Brunzell	2017
SD-17575	**Cultural Resources Survey Report for Distribution Systems Modifications on the San Diego Gas & Electric Company and Southern California Gas Company Pipeline Safety & Reliability Project, San Diego County, California**	**Brian Williams**	**2016**
SD-17579	Cultural Resources Report for the Spring Canyon Firebreak Rainbow to Sante Non-Miramar, West Aqueduct Road and Kearny Villa Road Alternatives for the San Diego Gas & Electric Company and Southern California Gas Company Pipeline Safety & Reliability Project, San Diego County, California	Shelby Gunderman Castells and Joel Lennen	2017
SD-17580	Cultural Resources Report for the Spring Canyon Firebreak Rainbow to Sante Non-Miramar, West Aqueduct Road and Kearny Villa Road Alternatives for the San Diego Gas & Electric Company and Southern California Gas Company Pipeline Safety & Reliability Project within Marine Corps (sic)	Shelby Gunderman Castells	2017
SD-19588	Preliminary Historical Assessment of the T.M. Meanley House	Susan M. Hector and Stephen R. Van Wormer	1986
SD-19599	Historical Resources Monitoring Program for the Programmatic Water Transmission Pipelines Condition Assessment Program, San Diego, California	Harry J. Price	2020

Table 1. Previous Studies Within a 1-Mile Radius of the Project Site

Report ID	Title	Author	Year
SD-19670	Archaeological Survey for the San Diego Gas & Electric Line 1600 Pipeline Integrity Project, Vulcan Yard, San Diego, San Diego County, California (SDG&E ETS #33773 ASM Project #23006.91)	Kent Manchen	2019
SD-19673	Archaeological Survey for the San Diego Gas & Electric Line 1600 Pipeline Integrity Project, Black Mountain Segment, Poway, San Diego County, California (ASM Project #23006.91)	Kent Manchen	2019
SD-19680	Cultural Resources Survey for the San Diego Gas & Electric Line 1600 Pipeline Integrity Project, Section 15 MCAS North Replacement Pomerado Road Yard, San Diego, San Diego County, California	Kent Manchen	2022
SD-20014	**Information Item A: Mira Mesa Community Plan Update**	**Bernie Turgeon**	**2022**
SD-20015	**Cultural Resources Constraints and Sensitivity Analysis for the Mira Mesa Community Plan Update, City of San Diego**	**Shelby Gunderman Castells and Spencer Bietz**	**2020**
SD-20016	**Mira Mesa Community Plan Area Historic Context Statement**	**Sarah Corder, Nicole Frank and Kate Kaiser**	**2022**
SD-20017	**Mira Mesa Community Plan Area Focused Reconnaissance Survey**	**Sarah Corder and Nicole Frank**	**2022**

Note: Bold = Study intersects with project site

Twenty-two resources were previously recorded within the 1-mile radius records search area (Table 2, Previously Recorded Cultural Resources Within a 1-Mile Radius of the Project Site). These resources consist of 14 early Native American sites, two isolated lithic artifacts, four historic period sites, one structure, and one modern site. The modern site is an experimental lithic reduction site created between 1988 and 1990. It is likely recorded to ensure that it is not mistaken for an early Native American site. The two isolate lithic artifacts (P-37-024934 and P-37-024935) are on the project site. Both resources were recorded by Mary Robbins-Wade of Affinis in 2003 as part of the Mira Mesa Bus Rapid Transit Station Project (P-37-14141) (Robbins-Wade 2003).

Table 2. Previously Recorded Cultural Resources Within a 1-Mile Radius of the Project Site

Primary Number	Trinomial	Chronological Placement	Site Type	Size (square meters)
P-37-005380	CA-SDI-5380	Pre-contact	Lithic scatter, milling features, with subsurface component	675
P-37-005490	CA-SDI-5490	Pre-contact	Rock ring	2
P-37-007091	CA-SDI-7091	Pre-contact	Quarry, flakes, and cores	Estimated 1,250
P-37-007092	CA-SDI-7092	Pre-contact	Lithic scatter	35
P-37-070993	CA-SDI-7093	Pre-contact	Lithic scatter	100
P-37-008675	CA-SDI-8675	Pre-contact	Lithic scatter	31,088
P-37-008676	CA-SDI-8676	Pre-contact	Lithic scatter	14,152
P-37-010674	CA-SDI-10674	Pre-contact	Lithic scatter and milling features; possible subsurface component	10,760

Table 2. Previously Recorded Cultural Resources Within a 1-Mile Radius of the Project Site

Primary Number	Trinomial	Chronological Placement	Site Type	Size (square meters)
P-37-010675	CA-SDI-10675	Pre-contact	Lithic scatter and milling features	2,120
P-37-010676	CA-SDI-10676	Pre-contact	Lithic scatter	1.6
P-37-010677	CA-SDI-10677	Pre-contact	Lithic scatter	2.4
P-37-010745	CA-SDI-10745	Historic	Historic refuse dump (late 1800s/early 1900s)	50
P-37-011711	CA-SDI-11711	Modern	Lithic reduction experiment site dating to 1988–1990	—[1]
P-37-011955	CA-SDI-11955	Pre-contact	Lithic scatter and quarry site	800
P-37-012203	CA-SDI-12203	Historic	Homestead	18,500
P-37-014864	SDI-I-166	Pre-contact	Isolated artifacts (two flakes)	N/A
P-37-014865	SDI-I-167	Pre-contact	Isolated artifact (quartzite shatter)	N/A
P-37-024934	**N/A**	**Pre-contact**	**Isolated artifact (cobble with flakes removed)**	**N/A**
P-37-024935	**N/A**	**Pre-contact**	**Isolated artifact (cobble with flakes removed)**	**N/A**
P-37-033557	N/A	Historic	Old Highway 395	—[1]
P-37-035444	N/A	Historic	T-Mobile West LLC SD06211A/SD2111 Pacific Bell Building constructed 1969	N/A
P-37-033943	N/A	Historic	Scripps Meanley Stables and House Complex	—[1]

Note: N/A = not applicable

Bold = Study intersects with project site

[1] = Not available

2.1.4 Applicable Regulations

The project is subject to state and local laws and regulations. No regional or District regulations regarding cultural resources apply to the project. City regulations are provided in this section for informational purposes.

2.1.4.1 State-Level Regulations

California Environmental Quality Act

According to the California Environmental Quality Act (CEQA), a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Public Resources Code (Section 5024.1; 14 CCR 4852), including the following:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), not included in a local register of historical resources (pursuant to California Public Resources Code, Section 5020.1[k]), or not identified in a historical resources survey (meeting the criteria in Section 5024.1[g] of the CEQA Guidelines) does not preclude a lead agency from determining that the resource may be a historical resource as defined in California Public Resources Code, Section 5020.1(j) or 5024.1.

California Register of Historical Resources (California Public Resources Code, Section 5020 et seq.)

In California, the term "historical resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code, Section 5020.1[j]). In 1992, the California Legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code, Section 5024.1[a]). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following National Register of Historic Places criteria (California Public Resources Code, Section 5024.1[c]):

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Resources less than 50 years old are not generally considered for listing in the CRHR but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resources (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historical resources. The CRHR criteria are nearly identical to those for the National Register of Historic Places, and properties listed or formally designated as eligible for listing in the National Register of Historic Places are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys. The State Historic Preservation Officer maintains the CRHR.

California Health and Safety Code, Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, Section 7050.5, requires that, if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County Coroner has examined the remains (California Health and Safe Code, Section 7050.5b). If the County Coroner determines or has reason to believe that the remains are those of a Native American, they must contact the Native American Heritage Commission (NAHC) within 24 hours (California Health and Safe Code, Section 7050.5c). The NAHC will notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

California Native American Graves Protection and Repatriation Act

In 2001, the California Legislature passed Assembly Bill (AB) 978, the California Native American Graves Protection and Repatriation Act (NAGPRA) of 2001, requiring all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items to provide a process for the identification and repatriation of these items to the appropriate Tribes. The bill also created a Repatriation Oversight Commission with oversight authority. The legislation intended to cover gaps in the federal NAGPRA specific to California. After the Repatriation Oversight Commission remained unfunded for over a decade, the NAHC was granted oversight authority. The NAHC was given more responsibilities in 2018 under AB 2836 and in 2021 under AB 275. AB 2836 requires the NAHC to provide technical assistance to the University of California in implementing policies and procedures adopted to expedite repatriation of remaining items in its possession. AB 275 requires the NAHC to maintain a list of California Native American Tribes and their state Aboriginal territories, adopt mediation procedures, and publish notices of completion of preliminary inventories and summaries on the NAHC website. Pursuant to California Health and Safety Code, Section 8013(a), the NAHC maintains a list of California Native American Tribes and their respective state Aboriginal territories for the repatriation of Native American human remains and cultural items.

Native American Historic Resource Protection Act

California Public Resources Code, Section 5097 et seq., codifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. Section 5097.9 states that no public agency or private party on public property shall "interfere with the free expression or exercise of Native American Religion." The code further states that:

> No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine... except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, expect for parklands larger than 100 acres.

2.1.4.2 City of San Diego

The following City regulations are provided for informational purposes; however, if any City permits are required, these regulations would apply.

2024 City of San Diego General Plan (Blueprint SD)

The Historic Preservation Element of the 2024 City of San Diego General Plan (2024 General Plan or Blueprint SD) includes the following cultural resources goals (City of San Diego 2024a).

Identification and Preservation of Historical Resources

HP-A.1 Strengthen historic preservation planning.

a. Maintain Certified Local Government (CLG) status ensuring San Diego's direct participation in federal and state historic preservation programs.
b. Utilize benefits of the CLG program including grant funding available from the California Office of Historic Preservation.
c. Update the Comprehensive Historic Preservation Plan. The plan is intended to guide, with specificity, historic preservation efforts in future years, including implementation measures, inventories, incentives, education and regulations.
d. Participate in regional efforts to strengthen historic preservation planning.

HP-A.2 Fully integrate the consideration of historical and cultural resources in the larger land use planning process.

a. Promote early conflict resolution between the preservation of historical resources and alternative land uses.
b. Encourage the consideration of historical and cultural resources early in the development review process by promoting the preliminary review process and early consultation with property owners, community and historic preservation groups, land developers, Native Americans, and the building industry.

c. Include historic preservation concepts and identification of historic buildings, structures, objects, sites, neighborhoods, and non-residential historical resources in the community plan update process.
d. Conservation areas that are identified at the community plan level, based on historical resources surveys, may be used as an urban design tool to complement community character (see also Urban Design Element, Policy UD-A.7).
e. Make the results of historical and cultural resources planning efforts available to planning agencies, the public and other interested parties to the extent legally permissible.

HP-A.3 Foster government-to-government relationships with the Kumeyaay/Diegueño tribes of San Diego.

a. Regularly meet with local Tribal governments to discuss issues of mutual concern.
b. Formally consult with identified California Native American tribes prior to the adoption or amendment of the General Plan or specific plan or the designation of open space.
c. Maintain confidentiality concerning locations of traditional cultural places that are identified through the consultation process and otherwise.
d. Support Tribal governments holding conservation easements over land voluntarily set aside for the protection of cultural places.

HP-A.4 Actively pursue a program to identify, document and evaluate the historical and cultural resources in the City of San Diego.

a. Develop context statements specific to areas being surveyed.
b. Complete and regularly update a comprehensive citywide inventory of historical and cultural resources in conformance with state standards and procedures. Include community, neighborhood, cultural, and historic preservation groups, property owners, land developers, and the building industry in planning and implementing historic surveys.
c. Require that archaeological investigations be guided by appropriate research designs and analytical approaches to allow recovery of important prehistoric and historic information.
d. Require the permanent curation of archaeological artifact collections and associated research materials, including collections held by the City. Support the permanent archiving of primary historical records and documents now in public institutions.
e. Include Native American monitors during all phases of the investigation of archaeological resources including survey, testing, evaluation, data recovery, and construction monitoring.
f. Treat with respect and dignity any human remains discovered during implementation of public and private projects within the City and fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

HP-A.5 Designate and preserve significant historical and cultural resources for current and future generations.

a. Due to their importance, designate historical resources using the City's adopted designation criteria, State Register criteria, and National Register criteria.
b. Establish historical districts where concentrations of buildings, structures, sites, landscapes, and objects are identified. Adopt guidelines when necessary to guide preservation and rehabilitation of the overall district character and significance and apply the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties for review of alterations and new construction in designated historical districts.
c. Protect and preserve historic sidewalk stamps, street signs, lampposts, street trees, and other hardscape and cultural landscape elements, in addition to designated historical buildings, structures, and sites that contribute to the historic character of a neighborhood.
d. Enforce the Historical Resources Regulations and Guidelines of the Land Development Code that are aimed at identifying and preserving historical resources. Update these regulations and guidelines as needed to maintain adequate protection of historical resources.
e. Encourage continued use and adaptive reuse of designated historical resources through application of the U.S. Secretary of the Interior's Standards and Guidelines for rehabilitation, reconstruction, and restoration.
f. Require that all City-owned designated historical resources be maintained in a manner that is consistent with the U.S. Secretary of the Interior's Standards for the Treatment of Historic Properties.

Historic Preservation, Education, Benefits, and Incentives

HP-B.1 Foster greater public participation and education in historical and cultural resources.

a. Encourage public attendance at monthly Historical Resources Board meetings through increased notification of agenda items on the City's website.
b. Encourage the participation of the City's rich diversity of ethnic groups in efforts to preserve historical and cultural resources through outreach to historical societies, interviews to document oral histories, and inclusion of ethnic resources on the City's Register of Designated Historical Resources.
c. Engage the public when creating "context statements" by adopting an oral history component of historical survey work.
d. Participate in National Historic Preservation Week and California Archaeology Month. Each year in May recognize those individuals, groups or businesses that have made a significant contribution to the preservation, protection or restoration of historical or cultural resources.

e. Foster educational opportunities using designated historical and cultural resources, including placement of plaques as a way to identify important historical resources throughout the City.
f. Encourage the involvement of educational institutions in preservation programs and activities.
g. Encourage the use of local history themes in some public art projects.
h. Encourage active community involvement in preservation efforts through resource sponsorship programs.

HP-B.2 Promote the maintenance, restoration, and rehabilitation of historical resources through a variety of financial and development incentives. Continue to use existing programs and develop new approaches as needed. Encourage continued private ownership and utilization of historic structures through a variety of incentives.

a. Encourage owners of historical resources to utilize federal incentives including Federal Rehabilitation Tax Credits, façade and conservation easements and others.
b. Encourage preservation, maintenance, rehabilitation, and restoration of designated historical resources through use of available incentives offered by the state of California for achieving this goal. These incentives include the Mills Act, the California Cultural and Historical Endowment, and others.
c. Create incentives to encourage the protection and preservation of designated historical buildings, structures, and objects and important archaeological sites.
d. Use the flexibility provided in the California State Historical Building Code Title 24 in meeting code requirements for historically-designated buildings.
e. Encourage the use of Transfer of Development Rights to preserve historical and cultural resources in situ, particularly in areas zoned for high-density development.
f. Take advantage of the Conditional Use Permit (CUP) process for historical resources, to gain flexibility in the application of some development regulations.
g. Foster preservation and adaptive reuse of designated historical buildings and structures by allowing retention of non-conforming setbacks without requiring a variance or hardship finding. Allow the use of a Neighborhood Development Permit with a finding that the proposed reuse does not adversely affect the community plan or General Plan because it would be beneficial in this regard.
h. Provide architectural assistance service to help owners design rehabilitation and/or adaptive reuse plans, or feasibility studies for historically-designated buildings, structures, and objects. Maintain the City's current façade improvement program for historic commercial properties.
i. Continue to provide design assistance for owners of historical resources through the Historical Resources Board.

HP-B.3 Develop a historic preservation sponsorship program.

a. Create a historic preservation fund that provides a monetary source for local preservation incentives such as an architectural assistance program and archaeological site protection plan. The fund may be supported through grants, private or public donations, or other sources.
b. Create a "receiver site" program that provides relocation sites for historical resources (buildings, structures, or objects) that cannot be preserved on site. Receiver sites should be located within the community in which the resource was originally located and should maintain a context and setting comparable to the original location. This method of preservation should be limited and used when other on-site preservation techniques are found not to be feasible.
c. Establish an "adopt a resource" program that encourages the public and local businesses to become involved in the protection and preservation of historical and cultural resources by sponsoring preservation of individual properties, which may include archaeological sites to the extent legally permissible.
d. Create a sponsorship program to encourage the public and local businesses to become involved in curation of existing archaeological artifact collections that have no current funding mechanism.

HP-B.4 Increase opportunities for cultural heritage tourism. Additional discussion and policies can be found in the Economic Prosperity Element, Section 1.

a. Collaborate with other public, private, and non-profit entities to create a sustainable cultural heritage tourism program within the overall travel industry.
b. Promote the history of San Diego and the many designated historical buildings, structures, districts, and landscapes to attract cultural heritage travelers.
c. Focus the development of cultural heritage programs on quality and authenticity.

2022 Mira Mesa Community Plan

The project site is in the City's Mira Mesa community. The update to the Mira Mesa Community Plan, adopted in 2022, is consistent with the City's 2024 General Plan. The overall guiding principle of the 2022 Mira Mesa Community Plan is to support vibrant, clean, walkable, amenity-rich villages and employment clusters.

The 2022 Mira Mesa Community Plan is organized into seven elements that provide visions, goals, and policies. The project would be required to comply with the following applicable historic and resource preservation policies in the Historic Preservation Element (City of San Diego 2022a):

- **5.1, Native American Consultation.** Conduct project-specific Native American consultation early in the discretionary development review process to ensure culturally appropriate and adequate treatment and mitigation for significant archaeological sites

with cultural or religious significance to the Native American community in accordance with all applicable local, state, and federal regulations and guidelines.

- **5.2, Cultural Investigations.** Conduct project-specific investigations in accordance with all applicable laws and regulations to identify potentially significant tribal cultural resources.
- **5.6, Reconnaissance Survey.** Complete a Reconnaissance Survey of the un-surveyed portions of the community based upon the Mira Mesa Community Planning Area Historic Context Statement to assist in the identification of potential historic resources, including districts and individually eligible resources.

2024 City of San Diego Municipal Code Historical Resources Guidelines

The purpose and intent of the City of San Diego Municipal Code Historical Resources Guidelines (Chapter 14, Division 3, Article 2) are to protect, preserve, and, where damaged, restore the City's historical resources. The regulations apply to all proposed development in the City when historical resources are present on the premises, regardless of the requirement to obtain a neighborhood development permit or site development permit. When any portion of a premises contains historical resources, as defined in San Diego Municipal Code, Chapter 11, Article 3, Division 1, the regulations apply to the entire premises (City of San Diego 2024b).

2012 City of San Diego Historical Resource Technical Report Guidelines and Requirements

The City's Historical Resource Technical Report Guidelines and Requirements is the guiding document for managing historical resources in the City. The guidelines intend to ensure consistent management of the City's historical resources, including identification, evaluation, preservation/mitigation, and development. They also outline the development review process and identify the requirements for preparing cultural resources technical studies (City of San Diego 2012).

2022 City of San Diego CEQA Significance Determination Thresholds for Historical Resources

Historical resources significance determination, pursuant to the City's CEQA Significance Determination Thresholds, consists of determining the sensitivity or significance of identified historical resources and then determining direct and indirect impacts that would result from project implementation. The City's CEQA Significance Determination Thresholds define a significant historical resource as one that qualifies for the CRHR, is listed in a local historic register, or is deemed significant in a historical resource survey, as provided under California Public Resources Code, Section 5024.1(g); however, even a resource that does not fulfill any of those qualifications may be historically significant for the purposes of CEQA.

The San Diego Municipal Code Historical Resources Guidelines state that the significance of a resource may be determined based on the potential for the resource to address important research

questions as documented in a site-specific technical report prepared as part of the environmental review process. In addition, Blueprint SD, which updated the City's 2024 General Plan and the Uptown Community Plan Focused Amendment, provides policies that require compliance for historical and cultural resources.

Based on the City's CEQA Significance Determination Thresholds, a significant impact regarding historical resources could occur if implementation of a project would result in a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5, including the adverse physical or aesthetic effects or the destruction of a prehistoric or historic building (including an architecturally significant building), structure, object, or site.

As a baseline, the City established the following criteria to be used in the determination of significance for an archaeological resource under CEQA:

> An archaeological site must consist of at least three associated artifacts/ecofacts (within a 40 square meter area) or a single feature and must be at least 45 years of age. Archaeological sites containing only a surface component are generally considered not significant, unless demonstrated otherwise. Such site types may include isolated finds, bedrock milling stations, sparse lithic scatters, and shellfish processing stations. All other archaeological sites are considered potentially significant. The determination of significance is based on a number of factors specific to a particular site including site size, type, and integrity; presence or absence of a subsurface deposit, soil stratigraphy, features, diagnostics, and datable material; artifact and ecofact density; assemblage complexity; cultural affiliation; association with an important person or event; and ethnic importance.
>
> The determination of significance for historic buildings, structures, objects and landscapes is based on age, location, context, association with an important person or event, uniqueness, and integrity.
>
> A site will be considered to possess ethnic significance if it is associated with a burial or cemetery; religious, social or traditional activities of a discrete ethnic population; an important person or event as defined by a discrete ethnic population; or the mythology of a discrete ethnic population.

Based on the City's CEQA Significance Determination Thresholds, a significant impact regarding archaeological resources could occur if implementation of a project would result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 or the disturbance of any human remains, including those interred outside formal cemeteries (City of San Diego 2022b).

City of San Diego CEQA Significance Determination Thresholds for Tribal Cultural Resources

CEQA was amended in 2014 through AB 52, which created a category of "Tribal Cultural Resources" that must be considered under CEQA and applies to all projects that file a Notice of Preparation or Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration on or after July 1, 2015. AB 52 requires lead agencies to notify and begin consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of a project if that Tribe has requested, in writing, to be kept informed of projects by the lead agency before the determination if a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report will be prepared. If a Tribe requests consultation within 30 days of receipt of the notice, the lead agency must consult with the Tribe.

AB 52 also specifies mitigation measures that may be considered to avoid or minimize impacts on Tribal Cultural Resources. Specifically, California Public Resources Code, Section 21074, provides the following guidance:

(a) "Tribal Cultural Resources" are either of the following:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
   A. Included or determined to be eligible for inclusion in the California Register of Historical Resources.
   B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a Tribal Cultural Resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a Tribal Cultural Resource if it conforms with the criteria of subdivision (a).

Section 3 Methods

3.1 Survey Methods

The goal of this survey was to provide a constraints-level survey to identify any archaeological resources that may be present. Rocky Shane Ciarmoli, Harris & Associates archaeologist, conducted the survey on May 12, 2025. A records search was conducted for the project site, including a 1-mile buffer around the site. In addition, the NAHC was contacted for a Sacred Lands File search.

The field survey was conducted using standard archaeological procedures and techniques. The survey area included the project site outlined on Figure 2, which included the entire campus. Concentric transects (10-meter) were walked throughout the project site. The northwestern portion of the campus, which is fenced off as a habitat preserve, was investigated more closely because it offered the highest visibility on the entire campus.

The survey started in the northeastern corner of the project site and proceeded in concentric transects toward the center of the site. Accessible open areas were systematically surveyed for resources. The northwestern corner of the project site is undeveloped and fenced for habitat conservation. Visibility in this area was good. Structural remains of concrete and asphalt, as well as tractor teeth, were noted. Scattered non-diagnostic debris including cans and bottle caps were observed. No archaeological sites were recorded. The remainder of the property is developed, paved, or landscaped.

The survey area was photographed (Appendix B) to document the environmental setting. A copy of this cultural resources technical report will be submitted to the South Coastal Information Center.

3.2 Historical Maps and Aerials

Historical aerial maps from 1953 through 2022 were reviewed (Historic Aerials 2025). In 1953, no structures were on the project site, and the Linda Vista Valley Auxiliary Field/Hourglass Field was still present. Starting in 1964, the Linda Vista Valley Auxiliary Field/Hourglass Field was subdivided into parcels. In 1972, development of the southeastern corner of the campus is visible, and baseball diamonds are in other parts of the project site. Development on the eastern side of the project site continued through the 1980s. The campus nearly reached the current development by 2012. In 2015, the 12-acre northwestern vernal pool preserve with interpretive trails was established (District 2016).

3.3 Laboratory and Cataloging Procedures

No diagnostic artifacts were identified during the survey; therefore, artifact evaluation and documentation are not required.

3.4 Artifact Conveyance

No artifacts were identified during the survey; therefore, artifact conveyance is not required.

3.5 Native American Outreach

On April 24, 2025, the NAHC was contacted for a Sacred Lands File search to determine if Sacred Lands are present on site. The NAHC response was negative for resources and recommended that the list of Tribes provided be contacted for more information. All Tribes on the list provided by the NAHC were contacted by email or regular mail for any information they may have regarding Sacred Sites that may be present on site (Confidential Appendix D, Sacred Lands File Search and Tribal Outreach).

To date, three responses have been received:

- The Viejas Band of Kumeyaay Indians (Viejas) did not note any known cultural resources in the area but requested to see development plans and suggested that a Kumeyaay monitor may be necessary based on the size of the project and level of ground disturbance.
- The La Posta Band of Mission Indians indicated that they would like to have Native American monitors on site for ground-disturbing activities throughout the project.
- The Jamul Indian Village (Jamul) acknowledged receipt of the request for input but did not express concern.

Section 4 Report of Findings

The field survey of the project site was negative for the presence of archaeological resources. The project site is nearly fully developed, and any resources that may have been present were likely destroyed before the project site was developed as a community college.

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Section 5 Interpretation of Resource Importance and Impact Identification

5.1 Resource Importance

5.1.1 Archaeological Resources

Through the records search, two resources were previously recorded on campus. However, they were isolated artifacts, which are, by definition, not significant because they lack context. Additionally, no archaeological resources were identified within the campus during the field survey. Therefore, no archaeological resources on the campus were identified pursuant to CEQA Guidelines, Section 15064.5.

Implementation of the Master Plan (both long-term and near-term projects) would occur on previously developed areas of campus (except the vernal pool preserve area), which are classified as having a low sensitivity for archaeological resources based on the previous disturbance for campus development. No archaeological resources are expected to be present based on the developed nature of the campus and surrounding area. It is unlikely that there would be an inadvertent discovery of archaeological resources during ground disturbance in these areas; therefore, future projects constructed within previously developed areas would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5.

The long-term Vernal Pool Community Trail Extension project would occur on land not previously developed. Improvements in this area would include an extension to the existing trail that would include elevated walks and additional viewing platforms. Therefore, although ground disturbance would be shallow and limited, and the walkways and platforms would be elevated, there is some potential for the unanticipated discovery of archaeological resources due to the undeveloped nature of the area. Therefore, long-term and near-term projects would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5, except the long-term Vernal Pool Community Trail Extension project, which could result in an adverse impact due to unanticipated discovery of archaeological resources.

5.1.2 Historical Resources

As part of the near-term projects, the proposed English Gallery and Performing Arts Center Building project would include demolition of the eastern portion of Lot 2. Lot 2 was constructed between 2005 and 2009 and does not meet the 50-year age threshold to be considered historic.

Additionally, the proposed Early Education Center Building project would include demolition of the Child Development Center F-2 Building, which was developed between 1993 and 1994 and does not meet 50-year age threshold to be considered historic.

As part of the long-term projects, two structures and three facilities (parking lots and recreation areas) are identified for demolition:

- Heavy Duty Diesel Technology C-1 Building
- English I Building
- Lot A
- Lot 3
- Basketball court/eastern portion of Hourglass Field

Additionally, several existing facilities would be modernized:

- Public Safety A-2 Building
- Science and Automotive S-2 through S-6 Building
- Vernal Pool Community Trail Extension
- Athletic fields
- Miramar College Driveway

None of these structures or facilities currently meet the threshold of 50 years to be considered historic and, therefore, were not formally evaluated. However, the following would meet the age threshold to potentially be considered historic over the next 20-year planning horizon of the Master Plan:

- Public Safety A-2 Building
- Heavy Duty Diesel Technology C-1 Building
- English I Building
- Eastern half of Hourglass Field

Alteration, demolition, or incompatible development involving these resources has the potential to result in substantial adverse changes to their significance. Therefore, implementation of long-term projects under the Master Plan has the potential to alter the significance of historical resources, and a significant impact could occur.

5.1.3 Native American Heritage Resources/Traditional Cultural Properties

5.1.3.1 Sacred Lands Tribal Outreach

Outreach with Native American Tribes has not identified any culturally or spiritually significant resources. No Traditional Cultural Properties that currently serve religious or other community practices are known to exist on the project site. During the current archaeological evaluation, no resources were identified.

5.1.3.2 Assembly Bill 52 Consultation

Pursuant to California Public Resource Code, Section 21083.3.1, the District initiated consultation pursuant to AB 52. Letters were mailed on December 12, 2025, to the following Native American Tribes who were identified by the NAHC as part of the outreach program:

- Barona Group of the Capitan Grande
- Campo Band of Diegueño Mission Indians (Campo)
- Ewiiaapaayp Band of Kumeyaay Indians
- Iipay Nation of Santa Ysabel
- Inaja-Cosmit Band of Indians
- Jamul
- La Posta Band of Diegueño Mission Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueño Mission Indians
- Pauma Band of Luiseño Indians
- San Pasqual Band of Diegueño Mission Indians
- Sycuan Band of the Kumeyaay Nation
- Viejas

The letters described the scope, location (including aerial and topographic maps), and nature of the long-range campus planning efforts and near-term improvements, and informed each Tribe of its opportunity to request government-to-government consultation.

The District is undertaking consultation under AB 52 with the three Tribes who replied affirmatively to request consultation: Campo, Jamul, and Viejas.

Campo Band of Mission Indians

On January 15, 2026, the Campo Cultural Resource Manager submitted a written response to the District requesting government-to-government consultation pursuant to AB 52. In the Tribe's response, Campo requested additional information related to proposed mitigation measures, the presence of adjacent sites, and the types of ground-disturbing activities associated with District projects. Campo indicated the Tribe's interest in engaging in consultation to further discuss these topics and to address potential impacts on TCRs. The District has followed up with the Tribe to conduct consultation and provided Draft Archaeological/Cultural Resources Technical Reports; however, no further correspondence from the Tribe has been received, and no consultation meetings have been scheduled to date.

Jamul Indian Village

On January 15, 2026, the Jamul Tribal Historic Preservation Officer and Cultural Resource Director submitted a written response to the District requesting government-to-government consultation pursuant to AB 52. In its response, Jamul expressed its request to consult on the proposed projects and identified its designated Tribal contact for further coordination. Draft Archaeological/Cultural Resources Technical Reports were provided to the Tribe for review. A virtual Tribal consultation meeting was conducted on April 29, 2026, with representatives from the District, Jamul, and HELIX, the District's consultant. The Tribe was provided a summary overview of the proposed projects, cultural resources study methodology, and anticipated schedule for public review of the environmental document.

Viejas Band of Kumeyaay Indians

On December 15, 2025, Viejas responded to the AB 52 consultation request, stating that they had reviewed the proposed projects and indicated that the project sites have cultural significance or ties to Viejas. Viejas stated that cultural resources have been identified within or adjacent to the area of potential effects for projects involving ground-disturbing activities in undisturbed soils. Viejas requested that a Kumeyaay cultural monitor be present during ground-disturbing activities and that the Tribe be notified of any inadvertent discoveries, including cultural materials, cremation sites, or human remains.

For projects occurring within previously disturbed areas, Viejas noted that the project sites may contain sacred locations and requested that such areas be avoided where feasible and protected with appropriate buffer zones. Viejas further requested compliance with applicable federal and state laws related to cultural resources and TCRs, including the CEQA, National Environmental Policy Act, NAGPRA, and California NAGPRA, and requested immediate notification of changes to the project or inadvertent discoveries. Viejas provided contact information for coordination related to monitoring and consultation. No request for further government-to-government consultation pursuant to AB 52 was provided.

5.2 Impact Identification

No archaeological resources were identified during the field survey, and the two previously recorded resources were isolated artifacts, which are, by definition, not significant because they lack context.

No resources would be impacted due to near-term projects, as buildings and parking lots proposed to be demolished would not meet the 50-year age threshold required to be considered historic, and development would occur within previously developed areas of the campus where archaeological sensitivity is low. Long-term projects could potentially impact historical resources that would meet the 50-year age threshold over the next 20 years—specifically, Public Safety A-2 Building, Heavy

Duty Diesel Technology C-1 Building, English I Building, and the eastern half of Hourglass Field. In addition, a long-term project—the Vernal Pool Community Trail Extension project—could result in an adverse impact due to the undeveloped nature of the site and the potential for unanticipated discovery of archaeological resources.

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Section 6 Management Considerations – Mitigation Measures

To mitigate for future, long-term potential adverse impacts on historical resources on the campus, the following mitigation measures apply to proposed alterations, additions, demolitions, and/or construction involving any of these resources:

- Public Safety A-2 Building Modernization project
- Heavy Duty Diesel Technology C-1 Building project
- Welcome and Multicultural Center Building project
- Athletics Building and Courts project

CUL-1: **Historic Properties Project Impacts Analysis.** During initial project planning for projects that may impact resources that meet the 50-year threshold to be considered historic in the future—Public Safety A-2 Building, Heavy Duty Diesel Technology C-1 Building, English I Building, and the eastern half of Hourglass Field—a historic analysis by a qualified architectural historian (meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural History) shall be completed to determine whether the resource(s) are significant under California Environmental Quality Act.

If resources are determined significant, the project plans shall be reviewed by a qualified architectural historian (meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural History) for the potential to affect character-defining features of that resource as identified in the historic analysis. If the architectural historian determines that the minor changes to an eligible historic resource would result in no permanent changes to the character-defining features of the resource, no further analysis or mitigation measures are required for minor renovation projects.

For projects that may involve altering character-defining features, either directly or indirectly, a project impacts analysis shall be prepared by a qualified architectural historian during the project design phase to identify potential direct and indirect impacts, as defined by California Environmental Quality Act, using the Secretary of the Interior's Standards for the Treatment of Historic Properties. If the project impacts analysis concludes that the project meets the standards, no further analysis or mitigation measures are required.

If the project impacts analysis concludes that the project, as designed, does not comply with the standards, it shall be further reviewed by the same qualified architectural historian to determine if the resource would retain its overall eligibility as a historic resource, even if the project does not strictly comply with the standards. Examples of such projects might include change to major interior spaces that require the loss or

removal of important character-defining features or large building additions that alter a secondary facade.

The District shall also evaluate if the project can be redesigned to meet the standards. If such project changes are determined by the District to be feasible, changes shall be incorporated into the project to the satisfaction of the qualified architectural historian and documented in the Project Impacts Analysis or a subsequent memorandum. If such changes are incorporated and the project complies with the standards, no further analysis or mitigation measures are required.

If the project cannot be redesigned to meet the standards, the District shall implement Mitigation Measure CUL-2 to document the resource and Mitigation Measure CUL-3 to memorialize the resource.

CUL-2: **Historic American Buildings Survey or Historic American Landscapes Survey Documentation.** The District shall commission the preparation of Historic American Buildings Survey or Historic American Landscapes Survey Level II documentation by a qualified architectural historian for any historical resource that would be impacted by the project. Documentation of the existing conditions shall be undertaken prior to the commencement of construction in accordance with the Level II documentation procedures. Level II documentation shall include select existing drawings, photographs, and a written history and resource description. The Historic American Buildings Survey or Historic American Landscapes Survey Documentation shall be submitted to the Mira Mesa College campus archive and to the San Diego History Center and/or to the South Coastal Information Center at San Diego State University, which is the California Historical Resources Information System Information Center for San Diego County.

CUL-3: **Interpretation/Commemoration.** If a project would substantially alter a historical resource, then the District, in consultation with a qualified architectural historian, shall prepare interpretive and/or commemorative materials of the building, structure, or resource. Interpretive displays in the public areas of significant buildings, landscapes, and sites shall be installed as deemed appropriate and feasible by the District.

The following mitigation measure would be required to address the unanticipated discovery of archaeological resources for the long-term Vernal Pool Community Trail Extension project due to the undeveloped nature of the vernal pool preserve area.

CUL-4: **Cultural Resources Monitoring Program.** For ground-disturbing activities on the Vernal Pool Community Trail Extension project site, a cultural resources monitoring program shall be implemented:

- The District shall retain a qualified project archaeologist and Native American monitor associated with a Tribe that is traditionally and culturally affiliated with the project site to implement the monitoring program, as described below. The qualified project archaeologist shall meet the Secretary of the Interior's Professional Qualifications Standards (48 Federal Register 44738-39).
- The qualified project archaeologist and a Native American monitor shall attend the pre-grading meeting with the grading contractors to explain and coordinate the requirements of the monitoring program.
- The cultural resources monitoring program shall require that during the initial grubbing, site grading, excavation, trenching, or disturbance of the ground surface, an archaeological monitor, overseen by the qualified project archaeologist, and a Native American monitor shall be on site full time. The frequency of inspections shall depend on the rate of excavation, the materials excavated, and discoveries of archaeological resources or Tribal Cultural Resources as defined in California Public Resources Code, Section 21074. Archaeological and Native American monitoring may be discontinued when the depth of grading or soil conditions no longer retain the potential to contain cultural deposits. The qualified project archaeologist, in consultation with the Native American monitor, shall be responsible for determining the duration and frequency of monitoring.
- If unevaluated potentially significant cultural resources are discovered, construction activities shall be diverted away from the discovery until a significance evaluation can be conducted and the appropriate preservation or treatment actions can be taken. All cultural material collected during monitoring and appropriate for curation shall be processed and curated at a San Diego County facility that meets federal standards per Code of Federal Regulations, Title 36, Part 79, unless, in the case of Native American cultural material, other appropriate treatment measures, such as the reburial of recovered cultural material, are agreed upon by the District and the traditionally and culturally affiliated Tribe.
- After monitoring is complete, a report summarizing the cultural resources monitoring program shall be prepared. If no significant cultural resources are discovered, a brief letter shall be prepared and submitted to the District and the South Coastal Information Center. If significant cultural resources are discovered, a technical report with the results of the monitoring and data recovery or treatment (including the interpretation of the data within the research context), as applicable, shall be prepared and submitted to the District and South Coastal Information Center.

With implementation of Mitigation Measures CUL-1 through CUL-3, impacts on historical resources would be reduced to the extent feasible; however impacts would remain significant and unavoidable after mitigation for future projects that do not comply with the Secretary of Interior's Standards. In addition, implementation of Mitigation Measure CUL-4 would reduce impacts on archaeological resources to a less than significant level.

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Section 8 List of Preparers and Persons and Organizations Contacted

The following persons participated in the preparation of this report.

8.1 Harris & Associates

Donna Beddow, RPA	Principal Investigator
Janelle Firoozi	CEQA Project Manager
Rocky Shane Ciarmoli	Archaeologist

8.2 San Diego Community College District

Lance Lareau	District Architect

8.3 Agencies and Individuals

The following agencies and individuals were contacted:

Art Bunce	Barona Group of Capitan Grande
Ben Dyche	Campo Band of Diegueño Mission Indians
Marcus Cuero	Campo Band of Diegueño Mission Indians
Daniel Tsosie	Campo Band of Diegueño Mission Indians
Michael Garcia	Ewiiaapaayp Band of Kumeyaay Indians
Robert Pinto	Ewiiaapaayp Band of Kumeyaay Indians
Clint Linton	Iipay Nation of Santa Ysabel
Rebecca Osuna	Inaja-Cosmit Band of Indians
Erica Pinto	Jamul Indian Village
Lisa Cumper	Jamul Indian Village
Gwendolyn Parada	La Posta Band of Mission Indians
Angela Elliott Santos	Manzanita Band of Kumeyaay Nation
Michael Linton	Mesa Grande Band of Diegueño Mission Indians
Theresa Hernandez	Mesa Grande Band of Diegueño Mission Indians
Allen Lawson	San Pasqual Band of Diegueño Mission Indians
Stephen Cope	San Pasqual Band of Diegueño Mission Indians
John Flores	San Pasqual Band of Diegueño Mission Indians
Cody Martinez	Sycuan Band of the Kumeyaay Nation
Bernice Paipa	Sycuan Band of the Kumeyaay Nation
Ernest Pingleton	Viejas Band of Kumeyaay Indians
Ray Teran	Viejas Band of Kumeyaay Indians

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Appendix A. Resumes

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Donna Beddow, RPA

SENIOR ARCHAEOLOGIST

Donna Beddow is a Senior Archaeologist with over 20 years of practical experience managing or part of multi-disciplinary teams. She specializes in cultural and tribal cultural resources, and has extensive experience with Native American consultation including AB-52, SB-18, and Sacred Lands. The majority of her career has been for the County of San Diego as a Senior Staff Archaeologist and Environmental Coordinator. She served as the County of San Diego Historic Site Board liaison and managed the County's cultural program. Her Master's thesis was used as the model for the development of the County's Significance Guidelines for Cultural Resources. These guidelines have been used by other lead agencies and environmental organizations, and are still used by the County of San Diego.

Her 20 plus years of experience include the review and preparation of CEQA documents. She has managed highly complex projects involving sensitive or difficult environmental issues; resolved major project issues and public controversies though applicant engagement and coordination with the general public and tribes. Ms. Beddow has reviewed and prepared cultural resource studies and CEQA documents for both private and public development projects.

EDUCATION

MA, Anthropology, San Diego State University, 2004

BA, History, San Diego State University, 1997

QUALIFICATIONS

Register of Professional Archaeologists

Meets Secretary of Interior's Professional Qualifications in Archaeology and History

RELEVANT EXPERIENCE

- **San Diego Unified School District,** *Central Elementary,* March 2025 to Present. Harris assisted San Diego Unified School District with the cultural evaluation for the redevelopment of the existing school site with residential and community-serving facilities. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.
- **Watsonville Headworks, October 2024 to Present.** Harris assisted the City of Watsonville with the cultural evaluation for improvements to the Watsonville Wastewater Treatment Facility. Federal funding for the project was being sought; therefore, a Historic Properties Identification Report (HPIR) was required for compliance with the National Historic Preservation Act. Responsibilities included conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, because the project site had been previously developed and historically disturbed, a desktop survey was conducted and the HPIR was prepared.
- **Liekweg Residence,** July 2024 to Present. Harris provided cultural monitoring for the excavation of two planters as required by the City of San Diego due the high sensitivity of the project site. Archaeological and tribal monitoring was provided during construction that required tribal coordination. During monitoring resources were identified, and through coordination with the tribe and City staff, wet screening of soils was conducted to identify any artifacts and/or ecofacts. Identified resources were further evaluated at the Harris lab for artifact class, material type, artifact type, use wear/modification, and measurements. Tribal coordination was required to determine the final conveyance of artifacts. A monitoring report was prepared that included a description of the significance of the find.
- **San Diego Unified School District,** *Chesterton Elementary,* November 2023 to February 2025. Harris assisted the San Diego Unified School District (District) with a Section 106 consultation for the redevelopment of the Chesterton Elementary School. As Principal Investigator, responsibilities included conducting a background search that relied on the CHRIS system, sacred lands files, inventories, historic maps, and historic registers. The project also required tribal outreach, a site survey to identify resources, and preparation of a cultural resources technical report and Section 106 documents (Area of Potential Effect, Findings of No Effect).

- **City of San Marcos,** *CEQA On-Call Consultant Services* (*Woodward 46 Specific Plan, Pico Avenue),* October 2023 to Present. Harris assisted the City of San Marcos with the review of environmental documents and technical studies. In addition, Harris has provided survey and report preparation for various projects. Responsibilities include peer reviewing and revising the cultural and tribal cultural sections of draft environmental documents and cultural studies for adequacy under CEQA and other applicable federal, state, and local requirements, and for consistency and compliance with project plans. In addition, as Principal Investigator, responsibilities include conducting background searches that relied on the CHRIS system, sacred lands file checks and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. Furthermore, a site survey to identify previously recorded and new sites was conducted, coordination with Native American monitors, and preparation of cultural resources technical reports.
- **University of California at San Diego (UCSD)**, *Rancho Bernardo Healthcare Center Medical Office Building*, September 2023 to Present. Harris assisted UCSD with the preparation of a Mitigated Negative Declaration (MND) for the development of a healthcare campus on a 9.81-acre site. As Principal Investigator, responsibilities consisted of a desk top evaluation of the project which included conducting a background search that relied on the CHRIS system, review of historic maps, and historic registers including the National, California, and local registers, a sacred lands file check and tribal outreach, and preparation of the cultural and tribal cultural resources section of the MND. Harris also assisted UCSD with the preparation of AB 52 tribal outreach letters and assisted with consultation tasks such as coordinating meetings and responding to tribes. Harris is also providing monitoring services for the project construction.
- **County of San Bernardino,** *CEQA On-Call Consultant Services,* September 2023 to Present. Harris assisted the County of San Bernardino with the review of environmental documents (EIR, MND, ND) and technical studies. Responsibilities include peer reviewing and revising the environmental documents and technical studies for adequacy under CEQA and other applicable federal, state, and local requirements, and for consistency with the County's General Plan. In addition, Harris assisted the County with AB-52 consultation. Specifically, Harris, prepared and tribal outreach information letters, responded to tribal comments received, and coordinated with the County on government-to-government consultation.
- **County of Santa Cruz,** *Buena Vista Drive Repairs,* August 2023 to Present**.** Harris assisted the County of Santa Cruz with the cultural evaluation for improvements to Buena Vista Drive. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.
- **City of Gilroy,** *StorQuest,* July 2023 to Present**.** Harris assisted the City of Gilroy with the cultural evaluation for the development of a self-storage facility. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.
- **City of Napa,** *The Grange Campground,* March 2023 to Present**.** Harris assisted the City of Napa with the cultural evaluation for the development of a campground complex. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.
- **City of San Diego,** *Coastal Resiliency Master Plan & PEIR,* February 2023 to Present. Harris is assisting the City in the development of the Coastal Resilience Master Plan and PEIR to implement Climate Resilient San Diego. The team evaluated nine locations for nature-based solutions and narrowed the scope down to the six most suitable locations. As Principal Investigator, responsibilities include conducting a background search that relies on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National, California, and City of San Diego Registers. In addition, site surveys to identify previously recorded and new sites, and preparation of a cultural resources technical report was prepared. The Plan and PEIR will implement Climate Resilient San Diego to inform development of nature-based coastal resilience projects to build resilience to the impacts of sea level rise and enhance and protect the biological diversity of the City's coastline.
- **City of Pacific Grove,** *Capital Improvement Project for Wastewater Collection System Phase 9,* October 2022 to Present**.** Harris assisted the City of Pacific Grove with the cultural evaluation for improvements to the wastewater collection system. Responsibilities included conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.

- **Port of San Diego,** *Sweetwater Park,* July 2022 to Present. Harris assisted the Port of San Diego with a Section 106 consultation for grant funding to assist with the development of Sweetwater Park. In addition, Harris also provided monitoring services during construction. As Principal Investigator, responsibilities included conducting a background search that relied on the CHRIS system, sacred lands files, inventories, historic maps, and historic registers. In addition, tribal outreach, a site survey to identify previously recorded and new sites, and preparation of a cultural resources technical report and Section 106 documents (Area of Potential Effect, Findings of No Effect) were completed. The evaluation relied in part on the Chula Vista Bayfront Master Plan Final EIR (2010). Furthermore, archaeological and tribal monitoring was provided during construction that required tribal coordination, and included data recovery for identified resources. Consultation and coordination with tribes was conducted for the conveyance of artifacts that resulted in the reburial of artifacts onsite.
- **CH Realty,** Perris Valley Industrial Project – City of Perris*,* March 2022 to Present**.** Harris conducted the cultural evaluation for the development of an industrial building. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.
- **County of San Diego,** *HUD Cultural Evaluations,* February 2022 to Present. Harris assisted the County of San Diego with the cultural evaluation of development sites that are applying for federal funding. Development sites include individual mobile homes, park acquisition sites, sidewalk and ADA access improvements, and vacant land. As Principal Investigator, responsibilities included conducting a background search that relies on the CHRIS system, historic maps, and historic registers including the National, California, and County of San Diego Registers. In addition, cultural surveys were conducted and preparation of required documentation for Section 106 consultation.
- **County of San Diego,** *Live Oak Springs Water System Improvements Project,* April 2021 to May 2024. Harris assisted the County with the biological and cultural evaluations for improvements to the potable water system on approximately 74 acres in the community of Live Oak Springs. In addition, Harris provided archaeological and tribal monitoring during project construction. As Principal Investigator, responsibilities included conducting a background search that relied on the CHRIS system, sacred lands files, inventories, and historic maps. In addition, tribal outreach, a site survey to identify previously recorded and new sites, preparation of a cultural resources technical report, and coordination with the Native American monitor was completed. Furthermore, archaeological and tribal monitors were provided during construction that required tribal coordination, and data recovery was conducted for identified resources.
- **County of San Diego Planning & Development Services,** *Project Staff Support Services,* March 2021 to Present**.** Harris' support services cover technical expertise of CEQA resource areas including, but not limited to, CEQA documentation, biological resources, cultural resources, and noise. Services include reviewing EIRs, MNDs, NDs, 15183 checklists, addendums, categorical exemptions, and other CEQA documentation. The Harris team also conducts research and prepares reports and environmental documentation, project mitigation measures, conditions of approval, and project alternatives. As Principal Investigator, responsibilities consist of providing support services for the cultural resources subject area. Duties include cultural resource evaluations, review and preparation of cultural reports, conducting cultural surveys, and engaging in tribal consultations (Sacred Lands, AB-52, and SB-18). In addition, consulting with tribes post-project approval has been conducted to determine appropriate mitigations when projects are not in compliance with permit requirements.
- **County of San Diego Department of Public Works,** *Environmental Staff Support Services,* March 2021 to Present**.** Harris assisted the County of San Diego with cultural evaluations for public projects. Responsibilities include conducting a background search that relied on the CHRIS system, sacred lands file check and tribal outreach, inventories, historic maps, and historic registers including the National and California Registers. In addition, a site survey to identify previously recorded and new sites was conducted, and preparation of a cultural resources technical report was prepared.

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Appendix B. Photographs

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Photograph 1: Miramar College, campus west entrance, facing southeast.



Photograph 2: West entrance driveway, facing east.



Photograph 3: Building I, facing southeast.



Photograph 4: Compass Point, center of campus.



Photograph 5: Building F-2, facing southeast.



Photograph 6: Building K-2, facing northeast.

		
Photograph 7: Hourglass Field.	**Photograph 8:** Vernal pools, northwest area of project site.	**Photograph 9:** Parking Lot 3, typical, northeaster area of project site.
		
Photograph 10: Concrete remnant.	**Photograph 11:** Plaque of historic land uses for project site.	**Photograph 12:** Non-diagnostic metal can.

Confidential Appendix C. CHRIS Background Data

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Confidential Appendix D. Sacred Lands File Search and Tribal Outreach

Under Separate Cover – Refer to Confidential Appendices

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Appendix E. Geology and Soils Technical Survey

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Geology and Soils Technical Study

Miramar College Master Plan

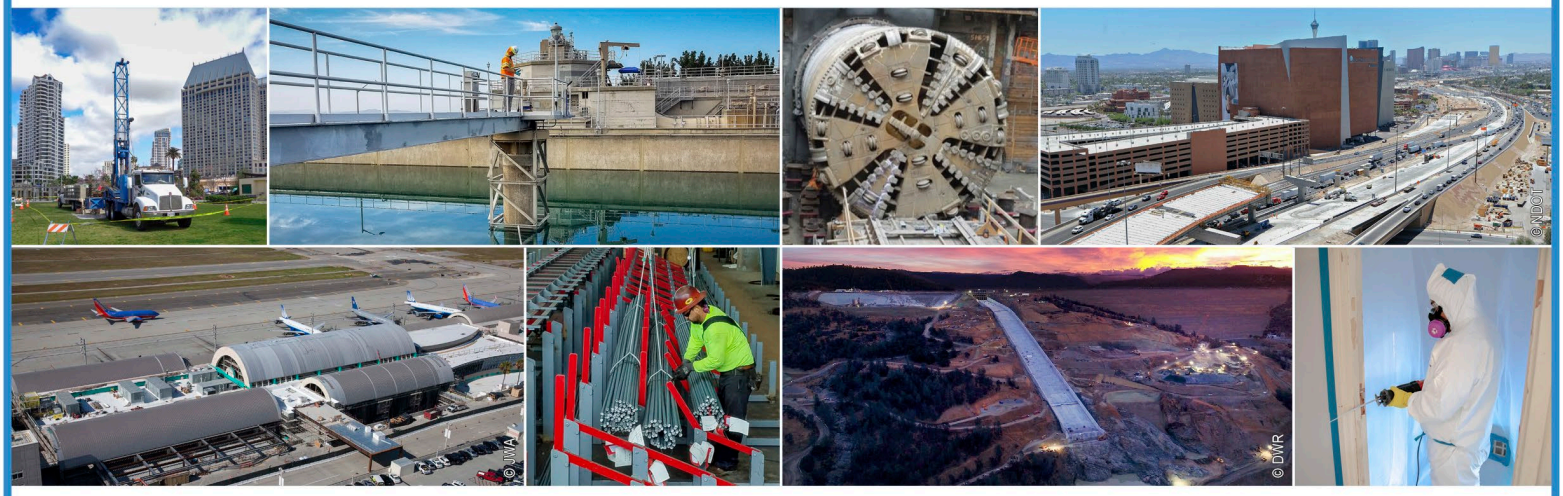
10440 Black Mountain Road
San Diego, California

Harris & Associates

2375 Northside Drive, Suite 125 | San Diego, California 92108

May 7, 2025 | Project No. 110068001

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EXECUTIVE SUMMARY

Ninyo & Moore has performed a Geology and Soils Technical Study for the Miramar College Master Plan project for the campus located at 10440 Black Mountain Road in the City of San Diego, California (site). The site includes a relatively level area that supports the existing improvements. Existing improvements include various classroom, laboratory, and administrative buildings, asphalt concrete (AC) roads, AC parking lots, swimming pools, tennis courts, and baseball and softball fields associated with Miramar College as well as Hourglass Community Park. Other improvements include a parking structure, solar canopies, and a Metropolitan Transit System (MTS) transit center. The northwest portion of the site is reserved as a natural area with unpaved interpretive trails. Topographically, the site is relatively level, with gentle gradients down to the south and west. Moderately sloping, south-facing hillsides are present in the southern portion of the site. Surface elevations across the main portion of the campus generally range between approximately 495 and 530 feet above mean sea level (MSL). The Miramar College Master plan project involves demolition of some existing improvements and future construction of new buildings, a parking structure, athletic courts, open spaces, and other site improvements.

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In general, the following geologic and geotechnical constraints for the project include:

- Surface and near-surface earth materials at the project site are mapped as alluvium/colluvium, very old paralic deposits, and conglomerate bedrock (Kennedy and Tan, 2008). Fill materials associated with the construction of the existing buildings, pavements, and utilities are also anticipated at the project. Geotechnical constraints related to soils at the project are:
  - *Soft Ground* – Areas with soft ground or loose soils may be located within the fill materials throughout the site.
  - *Expansive Soils* – The soils at the project site are expected to have a low to high potential for expansion.
  - *Corrosive Soils* – Based previous work in the project area, the site soils may be classified as corrosive.
  - *Fill Soils* – Man-made fill soils placed without engineering supervision may be loosely or inadequately compacted, may contain oversize materials unsuitable for reuse in engineered fills, and may contain unsuitable organic or expansive materials and debris that may preclude their use in engineered fills.
- The closest known major active fault is the Rose Canyon Fault, located approximately 9 miles west of the project site. Geotechnical constraints related to faulting and seismic events at the site are:
  - *Ground Shaking* – The site has a moderate potential for strong ground motions due to earthquakes on nearby active faults.
- Groundwater is anticipated at depths greater than 80 feet below the site. However, perched water and seepage may occur beneath portions of the project site.

- The potential for landsliding at the project site is considered low.
- The site is not mapped within a tsunami inundation hazard zone.
- The site is generally located in Zone X Area of Minimal Flood Hazard.

The conditions related to soils and geology, identified in this technical study report, would increase the cost and duration of grading and construction of the project, but would not preclude the feasibility of development of the project.

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1. INTRODUCTION

Ninyo & Moore has completed a Geology and Soils Technical Study for the Miramar College Master Plan project located at 10440 Black Mountain Road in San Diego, California (Figure 1). Our evaluation is based our review of published and non-published reports, aerial photographs, in-house data, a site reconnaissance, and the assessment of the potential geologic hazards in the project area. The purpose of this study was to evaluate the potential for existing environmental impacts related to geological or soils conditions that can affect the project site and adjoining areas, and to discuss measures that can be implemented to reduce or mitigate the potential impacts with respect to the design and construction of the proposed project.

2. SCOPE OF SERVICES

Ninyo & Moore's scope of services for this geologic study have included the activities listed below:

- Review of readily available regional, local, and site-specific geologic, geotechnical, fault hazard, and environmental reports.
- Review of readily available background information including topographic, soils, mineral resources, geologic, and seismic and geologic hazard maps, and stereoscopic aerial photographs.
- Performance of a site reconnaissance by a professional from our office.
- Compilation and analysis of the data obtained from our background review and site reconnaissance.
- Preparation of this report presenting our findings, conclusions, and preliminary recommendations regarding potential geologic and soil impacts at the site.

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3. SITE DESCRIPTION AND PROJECT DESCRIPTION

The site consists of two rectangular parcels that comprise approximately 114 acres located on the eastern side of Black Mountain Road between Hillery Drive to the north and Gold Coast Drive to the south, in the City of San Diego, California (Figure 1). The site is relatively level, with gentle gradients down to the south and west. Moderately sloping, south-facing hillsides are present in the southern portion of the site. Surface elevations across the main portion of the campus generally range between approximately 495 and 530 feet above mean sea level (MSL).

The site is currently occupied by various classroom, laboratory, and administrative buildings, AC roads, AC parking lots, swimming pools, tennis courts, and baseball and softball fields associated with Miramar College as well as Hourglass Community Park (Figure 2). Other improvements include a parking structure, solar canopies, and a Metropolitan Transit System (MTS) transit center. Approximately 12 acres in the northwest portion of the site is reserved as a natural area

with unpaved interpretive trails. Vegetation is limited to grass lawn areas and landscaping consisting of plants, shrubs, and moderate to large trees in developed areas, and grass, weeds, and brush in undeveloped areas.

Based on our review of project documents (Steinberg Hart, 2022), the Miramar Master Plan proposes new buildings, a parking structure, athletic courts, open spaces, and other site improvements.

4. GEOLOGIC AND SUBSURFACE CONDITIONS

Our findings regarding regional and site geology (Figure 3) and groundwater are provided in the following sections.

4.1. Regional Geologic Setting

The project area is situated in the San Diego County coastal section of the Peninsular Ranges Geomorphic Province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California (Norris and Webb, 1990; Harden 2004). The province varies in width from approximately 30 to 100 miles. In general, the province consists of rugged mountains underlain by Jurassic metavolcanic and metasedimentary rocks, and Cretaceous igneous rocks of the southern California batholith. In the coastal plain portion of the province where the project is located, Quaternary-age sedimentary deposits overlie Tertiary- and Cretaceous-age sedimentary units.

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The Peninsular Ranges Province is traversed by a group of sub-parallel faults and fault zones trending roughly northwest (Jennings, 2010). Several of these faults are considered active faults. The Elsinore, San Jacinto, and San Andreas faults are active fault systems located northeast of the project area. The Rose Canyon, Coronado Bank, San Diego Trough, and San Clemente faults are active faults located west of the project area. The Rose Canyon Fault Zone, the nearest active fault system, has been mapped approximately 9 miles west of the project site. Major tectonic activity associated with these faults within this regional tectonic framework consists primarily of right-lateral, strike-slip movement. Further discussion of faulting relative to the site is provided in the Faulting and Seismicity section of this report.

4.2. Site Geology

Based on our review of published geologic maps (Figure 3) and onsite and nearby geotechnical reports (Ninyo & Moore, 2010, 2011, 2012, and 2014), and our site reconnaissance, soils

underlying the site are generally anticipated to consist of fill materials, very old paralic deposits, and materials of the Stadium Conglomerate. A brief description of these units, as described in the cited literature or as observed on the site, is presented below.

4.2.1. Fill

Fill soils are anticipated to underlie portions of the site area due to previous land use, building construction, and burial of underground utility lines. As observed at the site and encountered in borings previously drilled onsite, the fill soils are generally anticipated to include medium dense to dense, silty and clayey sand and stiff, sandy clay (Ninyo & Moore, 2010, 2011, 2012, and 2014).

4.2.2. Alluvium/Colluvium

Quaternary-age alluvium is mapped in the southeasternmost corner of the site (Figure 3). Additionally, colluvial deposits were encountered during a previous subsurface exploration at the site (Ninyo & Moore, 2012). Alluvium/colluvium at the site is anticipated to consist of sandy clay, clayey sand, and silty sand with gravel and cobbles.

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4.2.3. Very Old Paralic Deposits

Middle to early Pleistocene-age very old paralic deposits are mapped across much of the site. As described by Kennedy and Tan (2008), very old paralic deposits generally consist of mostly poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine, and colluvial deposits composed of silt, sand, gravel, and cobbles. As encountered in previous subsurface explorations at the site very old paralic deposits are described as moderately to strongly cemented, silty sandstone and sandy cobble conglomerate (Ninyo & Moore, 2010, 2011, and 2014).

4.2.4. Stadium Conglomerate

Middle Eocene-age materials of the Stadium Conglomerate underlie the very old paralic deposits at the site. As described by Kennedy and Tan (2008), the Stadium Conglomerate consists of a massive cobble conglomerate with a dark-yellowish-brown, coarse-grained sandstone matrix. As encountered in previous borings drilled at the site, the Stadium Conglomerate consists of moderately to strongly cemented, sandstone and sandy cobble conglomerate (Ninyo & Moore, 2012 and 2014).

4.3. Groundwater

Sources provided by the California Water Data Library Resources (DWR) and the California State Water Resources Control Board (SWRCB) were reviewed for information pertaining to groundwater quality and occurrence in the vicinity of the project. Based on review of nearby well data, groundwater is anticipated to be deeper than 80 feet (Geotracker, 2025). Standing water was observed during our site reconnaissance near a storm drain pipe inlet in the natural reserve area in the northwestern portion of the site. Perched conditions and zones of seepage should be anticipated, particularly at the contact between fill material and very old paralic deposits and/or Stadium Conglomerate. Groundwater levels can fluctuate due to seasonal variations, groundwater withdrawal or injection, and other factors. Groundwater is expected to follow topographic gradients and flow generally towards the south and west.

According to the SWRCB Water Quality Control Plan for the San Diego Basin, the site is located within the Miramar Hydrologic Area within the Penasquitos Hydrologic Unit. This hydrologic area is indicated by the Regional Board as having potential beneficial use for municipal drinking water, agricultural, and industrial purposes (SWRCB, revised 2021).

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5. GEOLOGIC HAZARDS

In general, potential geologic hazards at the site include faulting and seismicity as they relate to seismic design of structures. These considerations and other geologic hazards such as liquefaction, landsliding, slope failure, and tsunamis, are discussed in the following sections.

5.1. Faulting and Seismicity

The site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion at the site is considered significant. The Rose Canyon fault zone, the nearest active fault zone, consists of predominantly right-lateral strike-slip faults that extend south-southeast through the San Diego metropolitan area. The subject site is not located within a State of California Earthquake Fault Zone (formerly known as an Alquist-Priolo Special Studies Zone; Hart and Bryant, 2007). The active Rose Canyon Fault is located approximately 9 miles west of the site.

5.2. Ground Rupture

Based on our review of the referenced literature and maps surface rupture due to active faulting is not considered a design consideration due to the absence of any known active faults underlying the site. However, lurching or cracking of ground surface as a result of nearby seismic events is possible.

5.3. Ground Motion

Considering the proximity of the site to the Rose Canyon fault which is capable of producing a maximum moment magnitude of 6.9, the project area has a high potential for experiencing strong ground motion. The 2025 California Building Code (CBC) specifies that the risk-targeted maximum considered earthquake (MCE_R) ground motion response accelerations be used to evaluate seismic loads for design of buildings and other structures. Based on our review of CGS's shear wave velocity map, the average shear wave velocity in the upper 30 meters (100 feet) of the subsurface profile (V_{s30}) is estimated to be 387 meters per second (1,268 feet per second) (CGS, 2015). In accordance with Chapter 20 of the American Society of Civil Engineers (ASCE) Publication 7-22 (2022) for the Minimum Design Loads and Associated Criteria for Building and Other Structures, the site classification is Site Class CD.

The 2025 CBC specifies that the potential for liquefaction and soil strength loss be evaluated, where applicable, for the Maximum Considered Earthquake Geometric Mean (MCE_G) peak ground acceleration with adjustment for site class effects in accordance with the ASCE 7-22. The MCE_G peak ground acceleration is based on the geometric mean peak ground acceleration with a 2 percent probability of exceedance in 50 years. The MCE_G peak ground acceleration with adjustment for site class effects (PGA_M) was evaluated as 0.47g using the 2025 ASCE seismic design tool (web-based). Proposed structures should be designed to mitigate strong ground motion.

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5.4. City of San Diego Seismic Safety Study

Per the City of San Diego Safety Study, Geologic Hazards and Faults (2008), and as shown in Figure 4, much of the site is mapped within hazard category 51, which is defined as "level mesas – underlain by terrace deposits and bedrock, nominal risk." The southern portion of the site is mapped within hazard category 53, which is defined as "level or sloping terrain, unfavorable geologic structure, low to moderate risk"; and the southeasternmost corner of the site is located within hazard category 32, which designates a low potential for liquefaction due to presence of "fluctuating groundwater, minor drainages".

5.5. Liquefaction and Seismically Induced Settlement

Liquefaction is the phenomenon in which loosely deposited, saturated granular soils (located below the water table) with clay contents (particles less than 0.005 mm) of less than 15 percent, liquid limit of less than 35 percent, and natural moisture content greater than 90 percent of the liquid limit undergo rapid loss of shear strength due to development of excess pore pressure during strong earthquake-induced ground shaking. Ground shaking of sufficient duration results

in the loss of grain-to-grain contact due to rapid rise in pore water pressure, and it eventually causes the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below grade. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. As mentioned previously, the southeasternmost corner of the site is designated by the City of San Diego Safety Study (2008) as having a low potential for liquefaction. However, based on the relatively dense nature of underlying material and the absence of a shallow groundwater table, it is our opinion that the risk for liquefaction and seismically induced settlement is low.

5.6. Landsliding and Slope Failure

Landslides have not been mapped on or adjacent to the site and evidence of landsliding was not observed in our review of aerial photographs or during our site reconnaissance. The site is located within an area mapped as being least susceptible to landslides. Additionally, based on the relatively flat topography of the site, the potential for landsliding or slope instability to impact the project development is considered low.

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5.7. Tsunamis

Tsunamis are long wavelength seismic sea waves (long compared to the ocean depth) generated by sudden movements of the ocean bottom during submarine earthquakes, landslides, or volcanic activity. According to our review of the most recent available tsunami map (Graehl, and Wilson, 2022), the site is not located within a mapped tsunami hazard area.

5.8. Flood Hazards

Based on review of Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (2012), the site is generally located in Zone X Area of Minimal Flood Hazard. Based on review of the flood maps, the potential for significant flooding to impact the site is not a design consideration for the project.

5.9. Expansive Soils

Expansive soils generally result from specific clay minerals that have the capacity to shrink or swell in response to changes in moisture content. Shrinking or swelling of foundation soils can lead to damage to slabs, foundations, and other engineered structures, including tilting and cracking. Expansive materials have previously been encountered in onsite soils (Ninyo & Moore,

2010 and 2012). In general, the soils and earth materials at the project site may be expected to have a very low to high potential for expansion. Expansive soils should be further evaluated during a geotechnical evaluation of the site and can be mitigated through selective grading techniques or special foundation design.

5.10. Corrosive Soils

Caltrans corrosion (2021) criteria define corrosive soils as soil with an electrical resistivity less than 1,500 ohm-cm, a chloride content more than 500 parts per million (ppm), more than 0.15 percent sulfates (1,500 ppm), and/or a pH less than 5.5. Based on laboratory testing performed on soil samples from the site (Ninyo & Moore 2012 and 2014) and Caltrans corrosion (2021) criteria, soils in the general vicinity of the project site have been classified as corrosive. The potential for similar soils to occur at the project is considered high and should be evaluated during a geotechnical evaluation of the site. If corrosive soils exist on the site, a corrosion engineer should be retained to assist in the design of improvements in contact with the soil.

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5.11. Soils

Based on the interactive map using the Web Soil Survey website (USDA, 2025), three soil units are mapped on the project site including Redding gravelly loan (2 to 9 percent slopes), Redding cobbly loam (9 to 30 percent slopes), and Riverwash. These soil units, shown in Figure 5, are considered to have high runoff and negligible erosion potential. As noted previously, the site is generally developed with the proposed improvements being outside of the reserve area in the northwestern portion of the site. The potential loss of native soils due to the project is considered low.

5.12. Mineral Resources

According to the City of San Diego General Plan (2008) the project site is located Mineral Resource Zone (MZR) -2. MRZ-2 is described as areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists (CGS, 2017).

6. CONCLUSIONS

Based on our review of the referenced background data and our geologic field reconnaissance it is our opinion that the following geological characteristics of the project site will require specific considerations when designing the project. These considerations include the following:

- Surface and near-surface earth materials at the project site are mapped as alluvium/colluvium, very old paralic deposits, and conglomerate bedrock (Kennedy and Tan, 2008). Fill materials associated with the construction of the existing buildings, pavements, and utilities are also anticipated at the project. Geotechnical constraints related to soils at the project are:
    - *Soft Ground* – Areas with soft ground or loose soils may be located within the fill materials throughout the site.
    - *Expansive Soils* – The soils at the project site are expected to have a low to high potential for expansion.
    - *Corrosive Soils* – Based previous work in the project area, the site soils may be classified as corrosive.
    - *Fill Soils* – Man-made fill soils placed without engineering supervision may be loosely or inadequately compacted, may contain oversize materials unsuitable for reuse in engineered fills, and may contain unsuitable organic or expansive materials and debris that may preclude their use in engineered fills.
- The closest known major active fault is the Rose Canyon Fault, located approximately 9 miles west of the project site. Geotechnical constraints related to faulting and seismic events at the site are:
    - *Ground Shaking* – The site has a moderate potential for strong ground motions due to earthquakes on nearby active faults.
- Groundwater is anticipated at depths greater than 80 feet below the site. However, perched water and seepage may occur beneath portions of the project site.
- The potential for landsliding at the project site is considered low.
- The site is not mapped within a tsunami inundation hazard zone.
- The site is generally located in Zone X Area of Minimal Flood Hazard.

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The conditions related to soils and geology, identified in this technical study report, would increase the cost and duration of grading and construction of the project, but would not preclude the feasibility of development of the project.

7. PRELIMINARY RECOMMENDATIONS

Based on the geologic and geotechnical considerations at the project site presented in the previous sections, we recommend further geotechnical evaluation of the project site, including the performance of a subsurface evaluation and laboratory testing program. Specific recommendations to be addressed prior to issuance of grading and building permits would include:

Soft Ground – Soils in areas with soft ground or loose soils in the area of the site may be subject to settlement and provide weak bearing conditions for support of structures and other improvements. Recommendations to mitigate this condition can typically include removal and/or

replacement of soils as engineered compacted fill. The extent of soft soils and recommended removals may be evaluated by subsurface exploration and laboratory testing.

Expansive Soils – Expansive soils may lead to damage to foundations and engineered structures. If expansive soils exist on site, the following recommendations may be implemented during construction: the soils may be removed from sensitive areas and placed in deeper fill areas; the soils may be excavated and removed from the site; or the expansive soils may be treated (i.e., lime treatment) to mitigate their potential for expansion. Special foundation designs to mitigate expansive soils may also be incorporated in the final design of the project. The extent of expansive soils and recommended mitigation measures may be evaluated by subsurface exploration and laboratory testing.

Corrosive Soils – If corrosive soils exist on the site, a corrosion engineer may be retained to assist in the design of improvements in contact with the soil. The extent of corrosive soils and recommended mitigation measures may be further evaluated by subsurface exploration and laboratory testing.

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Ground Shaking – Proposed structures should be designed appropriately to mitigate strong ground shaking in the event of an earthquake on a nearby fault.

The conditions related to soils and geology, identified in conjunction with the Geology and Soils Technical Study, would increase the cost and duration of grading and construction of the project, but would not preclude the feasibility of development of the project.

8. IMPACT ANALYSIS

Based upon the results of our geologic desktop assessments, our findings, conclusions, and recommendations regarding potential geological impacts to the project are summarized in the following sections.

8.1. Significance Thresholds

In evaluating the significance of potential environmental concerns in a particular study area, the criteria to consider, as they relate to geologic and soil conditions, are presented in the California Environmental Quality Act (CEQA) Guidelines (2024). In accordance with the scope of work, the findings of this study were evaluated with respect to Geology and Soils thresholds of significance within Appendix G of the CEQA Guidelines (2024).

8.2. Project Impacts and Significance

Based on the above criteria and the results of the evaluation, the potential impact by geologic and soil conditions at the project have been identified, and are discussed below.

VII. GEOLOGY AND SOILS

A. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of known fault?

The potential for ground surface rupture due to active faulting is considered low in the project area due to the absence of know active faults in the site vicinity (less than significant impact). However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

ii. Strong seismic ground shaking?

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The project has a high potential for strong ground motions due to earthquakes on nearby and onsite active faults (less than significant impact with construction methods and specifications incorporated).

iii. Seismic related ground failure, including liquefaction?

Based on the presence of relatively dense materials and absence of shallow groundwater at the site, soils underlying the site are not considered susceptible to liquefaction and seismic settlement hazards. Liquefaction potential should be evaluated as part of a comprehensive geotechnical evaluation performed prior to project development. Such an evaluation would be performed so an opinion can be made regarding the hazard for liquefaction and seismic settlement and that structural design and mitigation techniques can be implemented during design, as appropriate. Mitigation for construction in liquefaction hazard areas may include in-situ ground modification, removal of liquefiable layers and replacement with compacted fill, or support of project improvements with piles to sufficient depths to mitigate damage as a result of liquefaction and make the site safe for development. This impact is considered less than significant.

iv. Landslides?

Our review of geologic literature, aerial photos and topographic maps, does not indicate the presence of mapped landslides on the project site. Additionally, landslides were not mapped by others adjacent to the project site. Therefore, the potential impact of existing landslides is considered low (less than significant impact).

B. Would the project result in substantial soil erosion or the loss of topsoil?

If the site is developed in accordance with current building codes, industry standards, and the recommendations of a geotechnical evaluation, the potential for substantial soil erosion is considered to be low (less than significant impact). The potential for substantial loss of topsoil due to the proposed development is considered low due the site being previously developed.

C. Would the project be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

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The geologic units underlying the project site are not considered susceptible to landsliding, lateral spreading, subsidence, liquefaction or collapse. As such, the project is anticipated to a less than significant impact on these items.

D. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Based on our review of previous soil testing, soils with a potential for expansion may be present at the site. Soil conditions should be further evaluated by geotechnical laboratory testing. The risk associated with expansive soils can be addressed during design of the project, in accordance with the requirements of Chapter 18 of the 2025 California Building Code. However, we consider this impact to be less than significant with appropriate construction methods and specifications incorporated.

E. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The project would rely on the existing sanitary sewer system and would not use septic tanks or alternative wastewater disposal systems. We consider this impact to be less than significant.

F. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Guidelines for unique and potentially unique geological features in the San Diego region have been provided by the County of San Diego (2007). Based on the guidelines, our review of geologic literature, and our site reconnaissance, no unique geologic features are present at the site. We consider this impact to be less than significant.

9. LIMITATIONS

The field evaluation and geotechnical analyses presented in this report have been conducted in accordance with current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No warranty, implied or expressed, is made regarding the conclusions, recommendations, and professional opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered. Our preliminary conclusions and recommendations area based on an analysis of the observed conditions and the referenced background information.

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The purpose of this study was to evaluate geologic and geotechnical conditions within the project site and to provide a preliminary geological report to assist in the preparation of environmental impact documents for the project. A comprehensive geotechnical evaluation, including subsurface exploration and laboratory testing, should be performed prior to design and construction of structural improvements.

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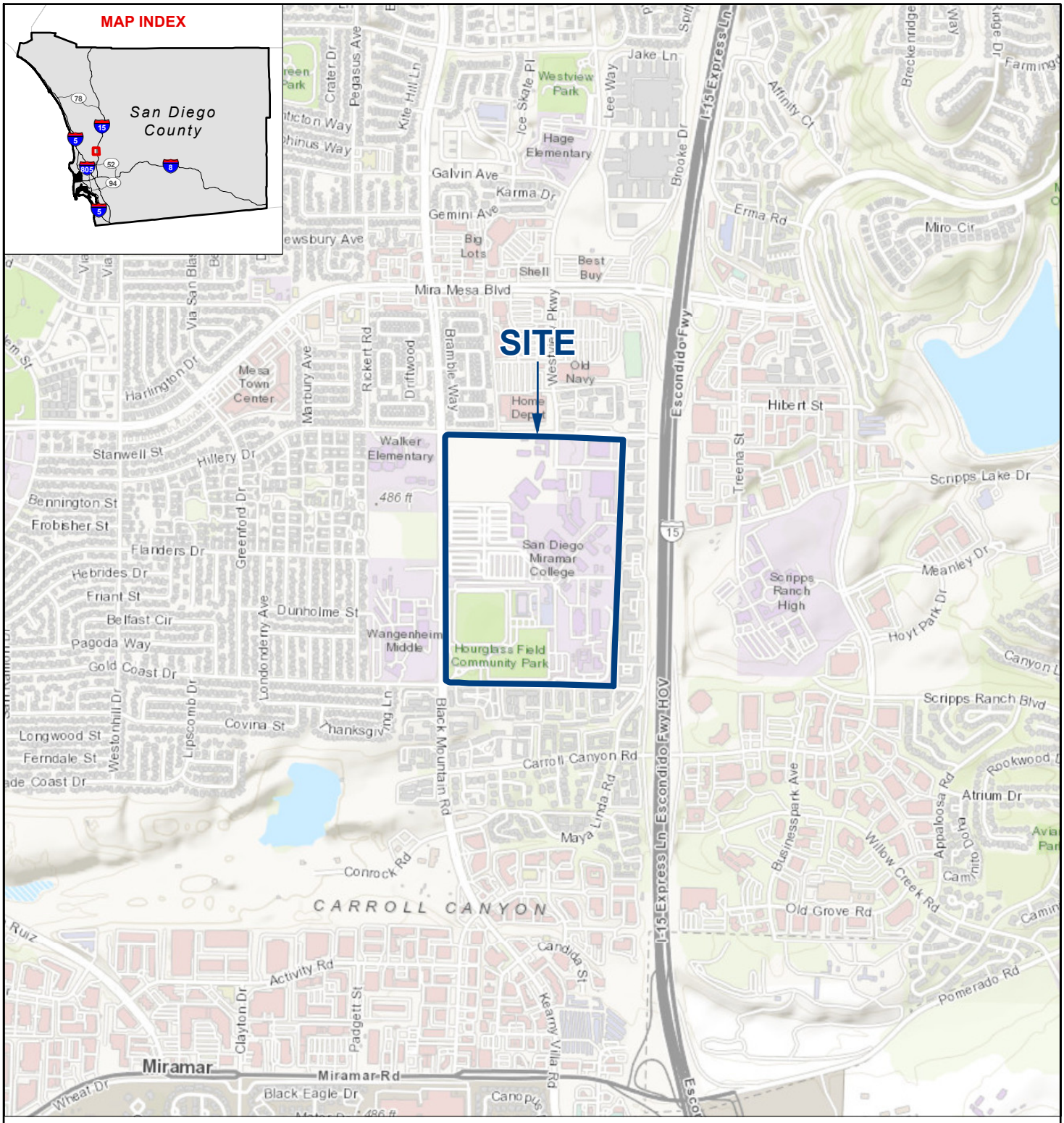
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FIGURES



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NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: ESRI WORLD TOPO, 2025

FIGURE 1

SITE LOCATION

MIRAMAR COLLEGE MASTER PLAN
10440 BLACK MOUNTAIN ROAD
SAN DIEGO, CALIFORNIA

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LEGEND

SITE BOUNDARY

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: GOOGLE EARTH, 2025

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FIGURE 2

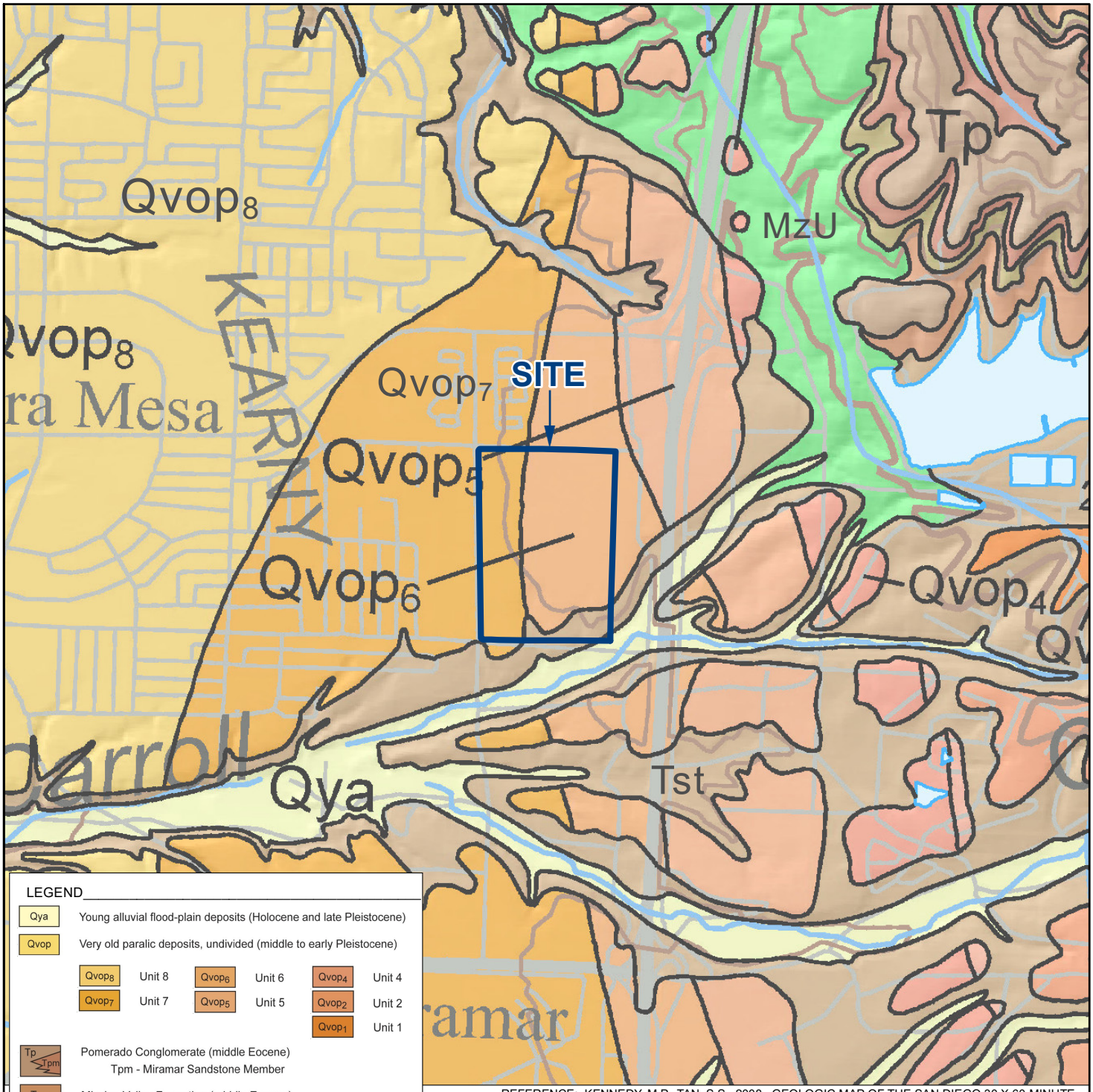
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AERIAL SITE PLAN

MIRAMAR COLLEGE MASTER PLAN
10440 BLACK MOUNTAIN ROAD
SAN DIEGO, CALIFORNIA

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LEGEND

Qya	Young alluvial flood-plain deposits (Holocene and late Pleistocene)
Qvop	Very old paralic deposits, undivided (middle to early Pleistocene)
$Qvop_8$ Unit 8	$Qvop_6$ Unit 6
$Qvop_7$ Unit 7	$Qvop_5$ Unit 5
$Qvop_4$ Unit 4	$Qvop_2$ Unit 2
$Qvop_1$ Unit 1	
Tp / Tpm	Pomerado Conglomerate (middle Eocene); Tpm - Miramar Sandstone Member
Tmv	Mission Valley Formation (middle Eocene)
Tst	Stadium Conglomerate (middle Eocene)
Tt	Torrey Sandstone (middle Eocene)
Mzu	Metamorphosed and unmetamorphosed volcanic and sedimentary rocks, undivided (Mesozoic)
70 U D	Fault - Solid where accurately located; dashed where approximately located; dotted where concealed. U = upthrown block, D = downthrown block. Arrow and number indicate direction and angle of dip of fault plane.
70	Strike and dip of beds

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: KENNEDY, M.P., TAN, S.S., 2008, GEOLOGIC MAP OF THE SAN DIEGO 30 X 60-MINUTE QUADRANGLE, CALIFORNIA

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FIGURE 3

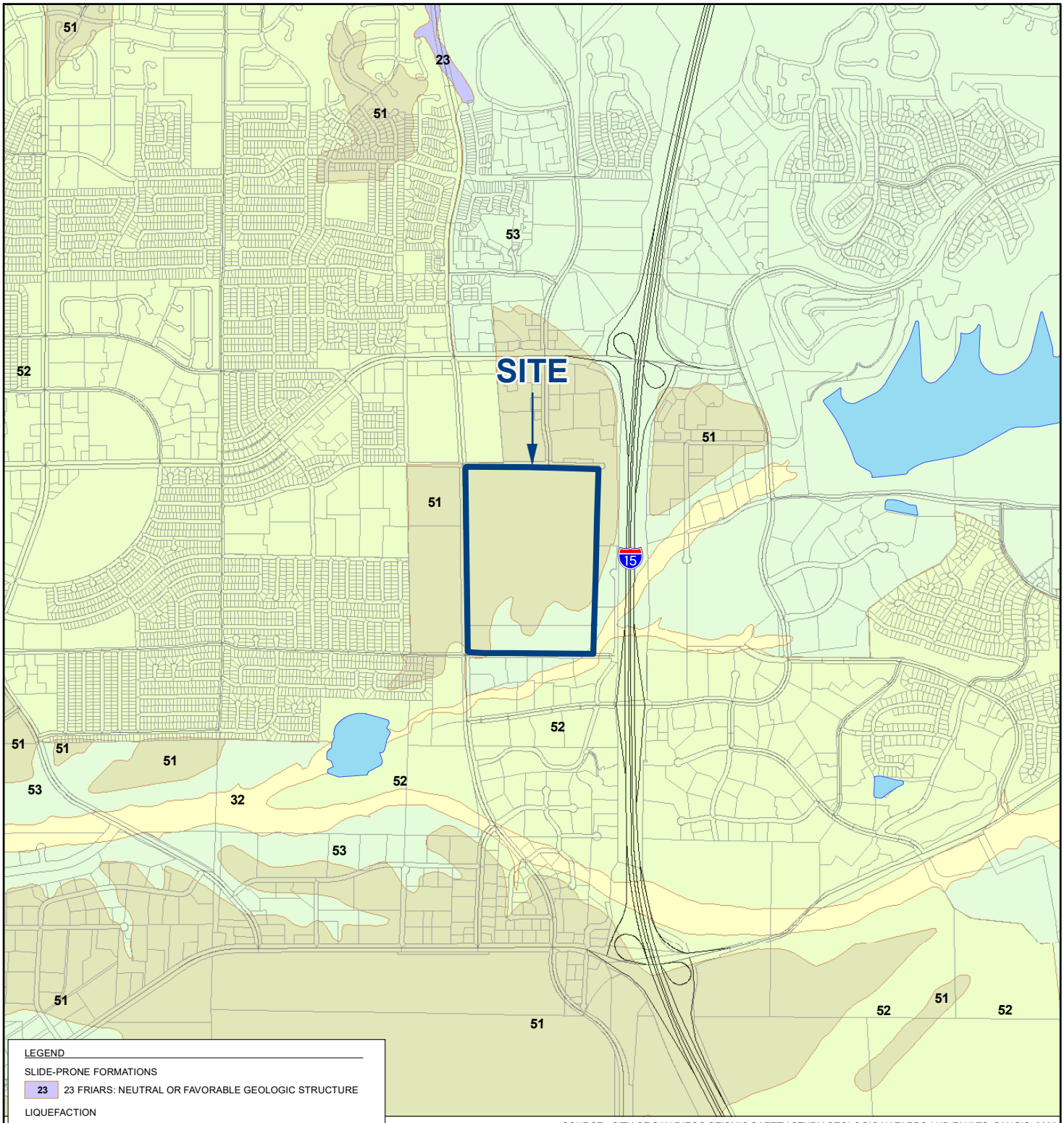
GEOLOGY

MIRAMAR COLLEGE MASTER PLAN
10440 BLACK MOUNTAIN ROAD
SAN DIEGO, CALIFORNIA

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LEGEND

SLIDE-PRONE FORMATIONS

23 — 23 FRIARS: NEUTRAL OR FAVORABLE GEOLOGIC STRUCTURE

LIQUEFACTION

32 — 32 LOW POTENTIAL -- FLUCTUATING GROUNDWATER MINOR DRAINAGES

OTHER TERRAIN

51 — 51 LEVEL MESAS -- UNDERLAIN BY TERRACE DEPOSITS AND BEDROCK NOMIMAL RISK

52 — 52 OTHER LEVEL AREAS, GENTLY SLOPING TO STEEP TERRAIN, FAVORABLE GEOLOGIC STRUCTURE, LOW RISK

53 — 53 LEVEL OR SLOPING TERRAIN, UNFAVORABLE GEOLOGIC STRUCTURE, LOW TO MODERATE RISK

SOURCE: CITY OF SAN DIEGO SEISMIC SAFETY STUDY GEOLOGIC HAZARDS AND FAULTS, SANGIS, 2008

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

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FIGURE 4

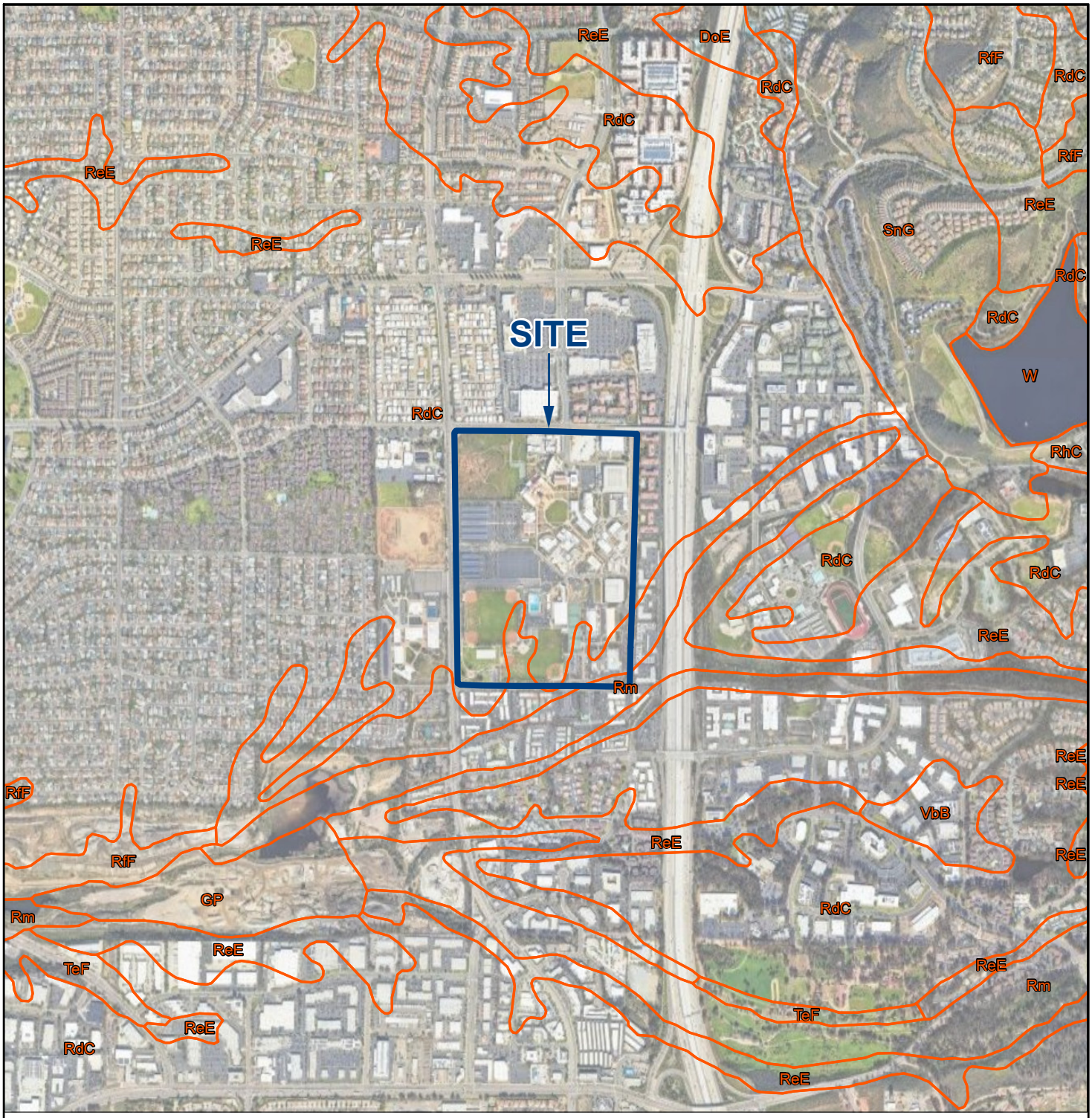
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GEOLOGIC HAZARDS

MIRAMAR COLLEGE MASTER PLAN
10440 BLACK MOUNTAIN ROAD
SAN DIEGO, CALIFORNIA

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SOIL DESCRIPTIONS

DoE	DIABLO-OLIVENHAIN COMPLEX, 9 TO 30 PERCENT SLOPES
GP	GRAVEL PITS
RdC	REDDING GRAVELLY LOAM, 2 TO 9 PERCENT SLOPES
ReE	REDDING COBBLY LOAM, 9 TO 30 PERCENT SLOPES
RfF	REDDING COBBLY LOAM, DISSECTED, 15 TO 50 PERCENT SLOPES
RhC	REDDING-URBAN LAND COMPLEX, 2 TO 9 PERCENT SLOPES
Rm	RIVERWASH
SnG	SAN MIGUEL-EXCHEQUER ROCKY SILT LOAMS, 9 TO 70 PERCENT SLOPES
TeF	TERRACE ESCARPMENTS
VbB	VISALIA GRAVELLY SANDY LOAM, 2 TO 5 PERCENT SLOPES
W	WATER

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE. | SOURCE: GOOGLE EARTH, 2023

LEGEND

SOIL BOUNDARY AND SOIL UNIT TYPE

N

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0 1,500 3,000

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FIGURE 5

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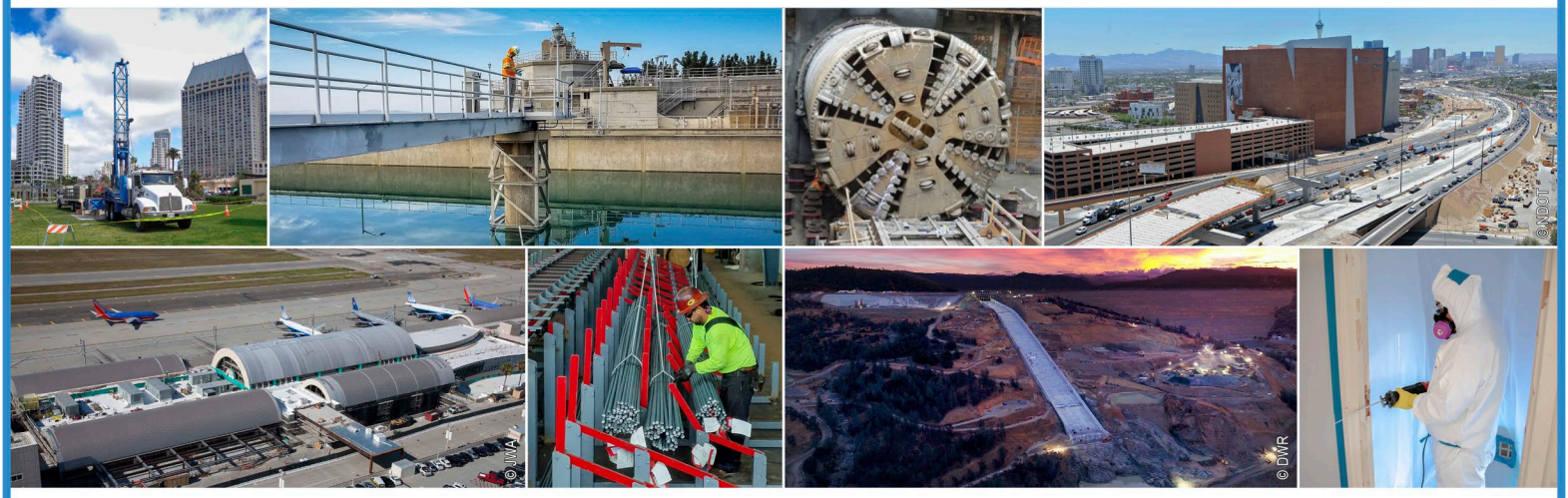
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USDA (SSURGO) SOIL SURVEY

MIRAMAR COLLEGE MASTER PLAN
10440 BLACK MOUNTAIN ROAD
SAN DIEGO, CALIFORNIA

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Appendix F. Paleontological Resources Technical Report

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PALEOSERVICES
SAN DIEGO NATURAL HISTORY MUSEUM

Paleontological Resources Technical Report

San Diego Community College District
San Diego Miramar College
Facility Master Plan
City of San Diego, California

February 25, 2026

Prepared for:

San Diego Community College District

Under contract to:

Harris & Associates
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thenat | SAN DIEGO NATURAL HISTORY MUSEUM

Executive Summary

This paleontological resources technical report was prepared for the San Diego Miramar College (SDMC) campus, located in the City of San Diego, San Diego County, California. The San Diego Community College District (SDCCD) prepared a Miramar College Facilities Path to 2035 (Master Plan) for the SDMC campus in 2022. The SDMC campus is located in the Mira Mesa neighborhood and Community Planning Area of the City of San Diego, and is bounded to the west by Black Mountain Road, to the north by Hillery Drive, to the east by North Campus Drive and South Campus Drive, and to the south by Gold Coast Drive. The Master Plan recommends a series of physical improvements across the SDMC campus. The proposed projects would generally demolish existing aging facilities on the campus and replace them with more modern facilities that accommodate existing programming.

The purpose of this report is to summarize existing paleontological resource data for the SDMC campus, discuss the significance of these resources, conduct a program-level analysis of impacts that may result from implementation of the Master Plan, and provide a mitigation framework for reviewing future projects associated with implementation of the Master Plan. The report also includes a project-level discussion of three near-term projects: the English Gallery and Performing Arts Center Building, Early Education Center Building, and South Campus Drive and North Campus Drive Connection projects. This report also includes the results of a literature review and an institutional paleontological records search conducted at the San Diego Natural History Museum (SDNHM). No paleontological field survey of the SDMC campus was conducted due to the extensive prior development within the campus and an evident lack of natural or manmade bedrock exposures available for inspection.

According to published geologic mapping and the revised stratigraphy of Walsh et al. (1996), the SDMC campus area is reported to be primarily underlain by early Pleistocene-age (approximately 1.16 million to 975,000 years old) very old paralic deposits (equivalent to the Lindavista Formation), in addition to the conglomerate tongue of the middle Eocene-age (approximately 46 to 45 million years old) Friars Formation. Late Pleistocene- to Holocene-age (less than 129,000 years old) young alluvial flood plain deposits are also mapped in the southeastern corner of the SDMC campus. In addition, artificial fill associated with previous construction activities within the SDMC campus is also anticipated to be present.

Previously placed artificial fill is assigned no paleontological resource sensitivity based on the lack of original geographic and stratigraphic context associated with fossils that may be present within these deposits. Young alluvial flood plain deposits are assigned a low paleontological resource sensitivity due to their relatively young geologic age and the recognition that any contained organic remains are likely conspecific with organisms inhabiting the area today. The Lindavista Formation is assigned a high paleontological resource sensitivity in the Mira Mesa area based on the preservation of primarily marine invertebrate fossils recovered from this geologic unit. The Friars Formation is assigned a high paleontological resource sensitivity based on the documented occurrence of diverse marine invertebrate and terrestrial vertebrate fossil assemblages preserved within these geologic units.

It is anticipated that the Lindavista Formation and Friars Formation may be impacted by future projects associated with implementation of the Master Plan, including the three proposed near-term projects. While the City of San Diego is not the lead agency for the Master Plan, thresholds established by the city were used to guide the analysis in this report given the same geologic units occur within the SDMC campus as within the city. Under the City of San Diego's Significance Determination Thresholds, potential impacts to paleontological resources are considered significant if a project would require over

1,000 cubic yards of excavation in a high resource sensitivity geologic deposit/formation/rock unit, or if excavation would occur on or near a previously documented fossil recovery site (i.e., within 100 feet of an existing fossil collection locality). No geologic units assigned a moderate resource sensitivity are present within the SDMC campus, so the additional threshold metric of 2,000 cubic yards is not applicable. While the city typically also employs a 10-foot depth threshold for required paleontological monitoring, because the SDMC campus has been previously graded and surficial weathered deposits removed, this depth threshold is not applicable for evaluating the potential impacts of proposed projects under the SDMC Master Plan. In its place, a project-specific depth threshold based on the depth of artificial fill in proposed areas of excavation may be defined upon review of site-specific geotechnical data. In the absence of site-specific geotechnical data, a 2-foot depth threshold should be used. If a project proposed under the Master Plan would exceed the project-specific thresholds of significance, then impacts to paleontological resources are deemed to be potentially significant and construction monitoring would be required.

The following mitigation framework is provided to guide review of near-term and future projects proposed under the SDMC Master Plan:

- All projects involving earthwork shall be reviewed to determine whether they would have a potentially significant impact on paleontological resources under Mitigation Measure (MM) PALEO-1:
    - If the total cut volume exceeds 1,000 cubic yards and excavation would exceed the project-specific depth threshold determined above, implementation of MM PALEO-2 and MM PALEO-3 shall be required.
    - If the total cut volume is less than 1,000 cubic yards and excavation would exceed the project-specific depth threshold determined above and the project occurs on or within 100 feet of an existing fossil locality, implementation of MM PALEO-2 and MM PALEO-3 shall be required.
    - If the total cut volume exceeds 1,000 cubic yards and excavation would not exceed the project-specific depth threshold determined above (regardless of proximity to existing fossil localities), implementation of MM PALEO-4 shall be required.
    - If the total cut volume is less than 1,000 cubic yards and the project does not occur on or within 100 feet of an existing fossil collection locality (regardless of excavation depth), implementation of MM PALEO-4 shall be required.

For projects that are determined to exceed the established grading thresholds based on the initial review required by MM PALEO-1, implementation of a paleontological mitigation program shall be required, as outlined in MM PALEO-2 (Monitoring) and MM PALEO-3 (Treatment of Fossil Discoveries). For projects that are not anticipated to exceed the established grading thresholds, implementation of MM PALEO-4 addressing unanticipated fossil discoveries shall be required. Implementation of these mitigation measures would reduce project-related impacts to paleontological resources to a level that is less than significant.

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Appendix A (Confidential) **A1**

1.0 Introduction

1.1 Project Description

This technical report provides an assessment of paleontological resources at the San Diego Miramar College (SDMC) campus, located in the City of San Diego, San Diego County, California (Figure 1). The Miramar College Facilities Path to 2035 (Master Plan) was finalized in 2022 and proposed campus-wide improvements at Miramar College to replace aging buildings and enhance campus connectivity.

The SDMC campus is located in the Mira Mesa neighborhood and Community Planning Area of the City of San Diego, and is bounded to the west by Black Mountain Road, to the north by Hillery Drive, to the east by North Campus Drive and South Campus Drive, and to the south by Gold Coast Drive.

The Master Plan recommends a series of future physical improvements across the SDMC campus. The anticipated improvements recommended for construction under the Master Plan would involve the demolition of approximately 42,897 square feet of existing buildings, construction of approximately 218,000 square feet of new buildings, and renovation of approximately 109,000 square feet of existing buildings. As the Master Plan is conceptual in nature, the exact architectural programming and design of each project would be developed during project implementation. Specific projects identified for development under the Master Plan include:

- English Gallery and Performing Arts Center Building (including demolition of the eastern portion of Lot 2)
- Early Education Center Building (including demolition of Child Development Center F-2 Building and Student Resource and Welcome Center K-2 Building)
- South Campus Drive and North Campus Drive Connection
- Public Safety A-2 Building Modernization
- Heavy Duty Diesel Technology C-1 (including demolition of C-1 building)
- Welcome and Multicultural Center Building (including demolition of English I Building)
- Parking Structure with Athletic Facilities (including demolition of Lot A and tennis courts)
- Science and Automotive S-2 through S-6 Buildings Modernization
- Miramar College Driveway Modification
- Athletics Building and Courts (including demolition of basketball court and eastern portion of Hourglass Field)
- Hourglass Field Modernization
- STEM Lab and Student Health Center Building (including demolition of Lot 3)

Campus-wide projects to improve circulation and utilities across campus may be incorporated into specific projects or as holistic campus improvement programs. Interior renovations and minor construction could also occur throughout existing campus buildings. The English Gallery and Performing Arts Center Building, Early Education Center Building, and South Campus Drive and North Campus Drive Connection projects are anticipated to be designed and constructed in the near term (2027–2030).



Figure 1. Overview map of the SDMC campus, City of San Diego, California.

The remaining projects or campus-wide improvements are anticipated to be designed and constructed in the long term (2032–2045).

1.1.1 English Gallery and Performing Arts Center Building

A new 115,000-gross square foot (gsf) English Gallery and Performing Arts Center Building is proposed in the northwest portion of campus. The existing eastern portion of Lot 2, consisting of 210 parking spaces, would be demolished to make way for the proposed building. The project would also include the removal of approximately ten trees. The new building, which would have a height of approximately 75 feet, would host English classes along with a new Performing Arts Center.

1.1.2 Early Education Center Building

The proposed Early Education Center Building would include the demolition of the existing 6,876-gsf Child Development Center F-2 Building (and associated 16 parking spaces) and the demolition of the existing 10,080-gsf Student Resource and Welcome Center K-2 Building. The project would also include the removal of approximately ten trees. The proposed Early Education Center Building would be approximately 18,500 gsf with a maximum height of approximately 40 feet and would include an open space and community garden use to the north of the building. In addition, a new drop-off area and traffic circle would be constructed adjacent to the new Early Education Center Building.

1.1.3 South Campus Drive and North Campus Drive Connection

On the eastern boundary of campus, east of existing Parking Structure PS-4, the southern terminus of North Campus Drive would be connected to the northern terminus of South Campus Drive. This roadway connection project would allow for improved vehicle circulation along the eastern edge of campus.

1.2 Scope of Work

This report is being prepared to support preparation of a Program Environmental Impact Report (PEIR) for the Master Plan. The purpose of this report is to summarize existing paleontological resource data for the SDMC campus, discuss the significance of these resources, conduct a program-level analysis of impacts that may result from implementation of the Master Plan, and provide a mitigation framework for reviewing future projects associated with implementation of the Master Plan. The report also includes a project-level discussion of three near-term projects: the English Gallery and Performing Arts Center Building, Early Education Center Building, and South Campus Drive and North Campus Drive Connection projects.

The report includes the results of a literature review and an institutional paleontological records search conducted at the San Diego Natural History Museum (SDNHM). No paleontological field survey of the SDMC campus was conducted due to the extensive prior development within the campus and an evident lack of natural or manmade bedrock exposures available for inspection. This report was written by Zev Brook, Katie M. McComas, and Thomas A. Deméré of the Department of PaleoServices, SDNHM.

1.3 Definition of Paleontological Resources

As defined here, paleontological resources (i.e., fossils) are the buried remains and/or traces of prehistoric organisms (i.e., animals, plants, and microbes). Body fossils such as bones, teeth, shells, leaves, and wood, as well as trace fossils such as tracks, trails, burrows, and footprints, are found in the geologic units/formations within which they were originally buried. The primary factor determining whether an object is a fossil or not is not how the organic remain or trace is preserved (e.g., “petrified”), but rather the age of the organic remain or trace. Although typically it is assumed that fossils must be older than ~11,700 years (i.e., the generally accepted end of the last glacial period of the Pleistocene

Epoch), organic remains older than recorded human history and/or older than middle Holocene (about 5,000 radiocarbon years) can also be considered to represent fossils (Society of Vertebrate Paleontology [SVP], 2010).

Fossils are considered important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the pattern and process of organic evolution and extinction. In addition, fossils are considered to be non-renewable resources because typically the organisms they represent no longer exist. Thus, once destroyed, a particular fossil can never be replaced.

The paleontological site, or locality, includes both the geographic and stratigraphic context of fossils—the place on the Earth and stratum (deposited during a particular time in Earth's history) from which the fossils were collected. Localities themselves may persist for decades, in the case of a fossil-bearing outcrop that is protected from natural or human impacts, or may be temporarily exposed and ultimately destroyed, as is the case for fossil-bearing strata uncovered by erosion or construction. Localities are documented with a set of coordinates and a measured stratigraphic section tied to elevation detailing the lithology of the fossil-bearing stratum as well as overlying and underlying strata. This information provides essential context for future scientific study of the recovered fossils.

1.3.1 Definition of Scientifically Significant Fossils

SVP has defined significant paleontological resources as consisting of "fossils and fossiliferous deposits […] consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information" (SVP, 2010).

1.4 Regulatory Framework

Paleontological resources are considered scientifically and educationally significant nonrenewable resources; they are protected under a variety of laws, regulations, and ordinances. The SDMC campus is located within the City of San Diego in San Diego County, California. Pursuant to Government Code Section 53094, local City of San Diego zoning and development regulations are not applicable to Master Plan development as implementation of the Master Plan would facilitate the education of community college students. However, SDCCD may consider aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible. Relative to paleontological resources, city grading regulations and thresholds of significance are not applicable to Master Plan development but provide relevant guidance for the evaluation of the potential to disturb paleontological resources given the presence of geologic units on SDMC campus consistent with surrounding areas of the city. As such, state regulations applicable to the Master Plan and local regulations providing relevant guidance are summarized below.

1.4.1 State

The **California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.)** protects paleontological resources on both state and private lands in California. This act requires the identification of environmental impacts of a project, the determination of significance of the impacts, and the identification of alternative and/or mitigation measures to reduce adverse environmental impacts. The Guidelines for the Implementation of CEQA (Title 14, Chapter 3, California Code of Regulations: 15000 et seq.) outline these necessary procedures for complying with CEQA. Paleontological resources are specifically included as a question in the CEQA Environmental Checklist

(Appendix G of the CEQA Guidelines): "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?"

Most CEQA lead agencies follow the definitions and guidelines provided by SVP (2010), which are in line with industry standards (e.g., Murphey et al., 2019). SVP (2010) additionally provides criteria for determining the significance of paleontological resources (see Section 1.3.1), and for appropriate measures to minimize impacts to paleontological resources. As advised by SVP (2010), impacts to paleontological resources can be minimized to a level below the threshold of significance through 1.) the permanent preservation of a fossil locality and its contained fossil resources); or 2.) the implementation of a paleontological mitigation program that would reduce adverse impacts to a level below the threshold of significance through the salvage and permanent storage of salvaged fossils in an established scientific institution.

Other state requirements for paleontological resource management are included in the **Public Resources Code (Chapter 1.7), Sections 5097.5 and 30244**. These statutes prohibit the removal of any paleontological site or feature on public lands without permission of the jurisdictional agency, defines the removal of paleontological sites or features as a misdemeanor, and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state) lands.

1.4.2 Local: City of San Diego

In the absence of SDCCD adopted thresholds related to paleontological resources, SDCCD considers the City's adopted guidance appropriate to the evaluation of paleontological resource impacts at its campuses located within the City. The **City of San Diego** has developed specific guidelines for the implementation of CEQA regarding the management of paleontological resources within the city's boundaries (City of San Diego, 2022). In reviewing the significance of potential impacts to paleontological resources, the city asks if the project would:

1. Require over 1,000 cubic yards of excavation in a high resource potential geologic deposit/formation/rock unit?
2. Require over 2,000 cubic yards of excavation in a moderate resource potential geologic deposit/formation/rock unit?

Additional factors considered in the city's review, as outlined in City of San Diego (2022), include:

- Whether grading will occur on a fossil recovery site or near a fossil recovery site in the same geologic deposit/formation/rock unit as the project site, in which case monitoring is always required.
- Whether the site has been previously graded and/or if unweathered geologic deposits/formations/rock units are present at the surface, in which case monitoring may be required for shallow grading (<10 feet deep).
- Whether documented or undocumented artificial fill will be graded, in which case monitoring is not required.

Following the significance determination thresholds developed by the City of San Diego (2022), **San Diego Municipal Code (SDMC)** Section §142.0151 establishes the following paleontological resources requirements for grading activities:

a) Paleontological resources monitoring shall be required in accordance with the General Grading Guidelines for Paleontological Resources in the Land Development Manual for any of the following:

(1) Grading that involves 1,000 cubic yards or greater, and 10 feet or greater in depth, in a High Resource Potential Geologic Deposit/Formation/Rock Unit; or

(2) Grading that involves 2,000 cubic yards or greater, and 10 feet or greater in depth, in Moderate Resource Potential Geologic Deposit/Formation/Rock Unit; or

(3) Grading on a fossil recovery site or within 100 feet of the mapped location of a fossil recovery site.

b) If paleontological resources, as defined in the General Grading Guidelines for Paleontological Resources, are discovered during grading, notwithstanding [Land Development Code] Section 142.0151(a), all grading in the area of discovery shall cease until a qualified paleontological monitor has observed the discovery, and the discovery has been recovered in accordance with the General Grading Guidelines for Paleontological Resources.

2.0 Methods

2.1 Paleontological Literature Review and Records Search

A review was conducted of relevant published geologic maps, published geological and paleontological reports, and other relevant literature (e.g., field trip guidebooks, theses and dissertations, and unpublished paleontological mitigation reports). This approach was followed in recognition of the direct relationship between paleontological resources and the geologic formations within which they are entombed. Knowing the geologic history of a particular area and the fossil productivity of geologic formations that occur in that area, it is possible to predict where fossils will, or will not, be encountered.

In addition, a paleontological records search was conducted at the SDNHM in order to determine if any documented San Diego Society of Natural History (SDSNH) fossil collection localities occur within the SDMC campus or in the surrounding vicinity. The records search specifically involved examination of the paleontological database for records of known fossil collection localities within a one-mile radius of the SDMC campus.

2.2 Paleontological Resource Assessment Criteria

The Society of Vertebrate Paleontology has developed mitigation guidelines for paleontological resources (SVP, 2010, 2025), which were developed with input from a variety of federal and state land management agencies and conform with established industry professional standards (Murphey et al., 2019). These guidelines recognize that paleontological resources are considered to include not only actual fossil remains and traces, but also the fossil collecting localities and the geologic units containing those fossils and localities, and thus are designed to evaluate the paleontological potential (or "paleontological sensitivity") of individual geologic units within a project area. Paleontological sensitivity is determined based on the existence of known fossil localities within a given geologic unit, and/or the potential for future fossil discoveries, given the age and depositional environment of a particular geologic unit. This procedure assigns ranks to geologic units based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils (SVP, 2010, 2025).

The City of San Diego utilizes the paleontological potential/sensitivity scale developed by Deméré and Walsh (1993) and used by San Diego County (County of San Diego, 2009), but does not utilize a "marginal" category (City of San Diego, 2022). Specific criteria for each paleontological sensitivity rating are outlined below in Table 1.

Table 1. Summary of paleontological resource sensitivity rankings and criteria used by the City of San Diego.

Paleontological Resource Sensitivity Ranking	Assessment Criteria
High resource sensitivity	High resource potential and high sensitivity are assigned to geologic formations known to contain paleontological localities with rare, well preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation, and fossils providing important information about the paleoclimatic, paleobiological and/or evolutionary history (phylogeny) of animal and plant groups. In general, formations with high resource potential are considered to have the highest potential to produce unique invertebrate fossil assemblages or unique vertebrate fossil remains and are, therefore, highly sensitive.
Moderate resource sensitivity	Moderate resource potential and moderate sensitivity are assigned to geologic formations known to contain paleontological localities. These geologic formations are judged to have a strong, but often unproven, potential for producing unique fossil remains.
Low resource sensitivity	Low resource potential and low sensitivity are assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area.
No resource sensitivity	No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore do not have any potential for producing fossil remains. These formations have no paleontological resource potential (i.e., they are not sensitive).

2.3 Paleontological Impact Analysis

Direct impacts to paleontological resources occur when earthwork activities (e.g., grading, trenching, or augering) cut into the geologic formations within which fossils are buried and physically destroy the fossil remains. As such, only earthwork activities that would disturb potentially fossil-bearing geologic units (i.e., those rated with a moderate or high paleontological resource sensitivity) have the potential to significantly impact paleontological resources.

The City of San Diego's CEQA Significance Determination Thresholds (outlined in Section 1.4.2) were utilized in the impact analysis in combination with project-specific threshold adjustments to determine whether project-related impacts to paleontological resources are considered potentially significant and would require monitoring by a trained paleontologist. The impact analysis also includes a conceptual project-level discussion of the three near-term projects proposed under the Master Plan. Because detailed information regarding the depths and volumes of excavation associated with the proposed projects is not currently available for review, a mitigation framework is provided in Section 5.1 to analyze and properly mitigate impacts to paleontological resources once detailed project information is available.

3.0 Existing Conditions: Geologic Setting

The SDMC campus is located along the coastal plain of San Diego County, within the Peninsular Ranges Geomorphic Province of California. Along the coastal plain, crystalline basement rocks of the late Jurassic-age Peñasquitos Formation, the early Cretaceous-age Santiago Peak Volcanics, and the Cretaceous-age Peninsular Ranges Batholith are nonconformably overlain by a "layer cake" sequence of

sedimentary strata of late Cretaceous, Eocene, Oligocene, Miocene, Pliocene, and/or Pleistocene age (Givens and Kennedy, 1979; Hanna, 1926; Kennedy, 1975; Kennedy and Moore, 1971; Kennedy and Peterson, 1975; Kimbrough et al., 2014; Peterson and Kennedy, 1974; Walsh and Deméré, 1991).

During the middle part of the Eocene (approximately 48 to 33 million years ago), a large river delta formed at the base of coastal mountains and extended westward forming a broad coastal flood plain characterized from east to west by active and abandoned distributary channels, extensive marsh and estuarine habitats, nearshore barrier islands, and offshore continental shelf sea floors incised by a deep submarine canyon. During the early and middle Pleistocene (approximately 2.5 to 0.1 million years ago), dramatic changes in global sea level related to the advance and retreat of continental ice sheets, combined with regional uplift created the flat mesas and deep valleys characteristic of the coastal San Diego region today. During interglacial periods of high sea level, marine transgressions (coastal flooding) led to wave-erosion of planar marine abrasion platforms (ancient seafloors) into the soft sedimentary rocks, and subsequent deposition of shallow marine and nonmarine sediments by prograding deltas from the east. During glacial periods of low sea level, marine regressions resulted in the carving out of deep river valleys by the west-flowing prehistoric rivers and streams of coastal San Diego County. Subsequent marine transgressions caused flooding of the ancient river valleys and the formation of estuaries and small bays, which were eventually filled in by alluvium transported from the east by local rivers and streams.

4.0 Results

4.1 Results of the Literature Review and Records Search

According to mapping by Kennedy and Tan (2008), amended with the revised stratigraphy of Walsh et al. (1996), the SDMC campus is reported to be primarily underlain by mesa-capping early Pleistocene-age (approximately 1.16 million to 975,000 years old) very old paralic deposits (equivalent to the Lindavista Formation), as well as the conglomerate tongue of the middle Eocene-age (approximately 46 to 45 million years old) Friars Formation, with late Pleistocene- to Holocene-age (less than 129,000 years old) young alluvial flood plain deposits mapped in the southeastern corner of the campus (Figure 2). While not indicated on published geologic maps, artificial fill associated with previous construction activities is also anticipated to be present within the SDMC campus.

4.1.1 Summary of SDMC Campus Stratigraphy

The SDMC campus is situated on the level surface of the Lindavista Mesa, a geomorphic landform that was once continuous to the south with the broad San Diego Mesa and to the west with the narrow mesa surface forming the top of the Point Loma Peninsula. In all three areas the mesa surface is underlain by strata traditionally mapped by geologists as the Lindavista Formation. These strata were deposited in a transitional marine and nonmarine environment under shallow nearshore marine, coastal aeolian, and deltaic conditions (Kennedy, 1975). In the Project area, the basal strata of the Lindavista Formation were deposited on a planar marine abrasion platform correlated with the Black Mountain Terrace of Kern (in Kennedy and Tan, 2008), which is estimated to have been eroded into older Eocene sedimentary rocks during a middle Pleistocene high sea stand approximately one million years ago. Unfortunately, the exact stratigraphic thickness of the Lindavista Formation on the Project site was not explored during the various geotechnical investigations.

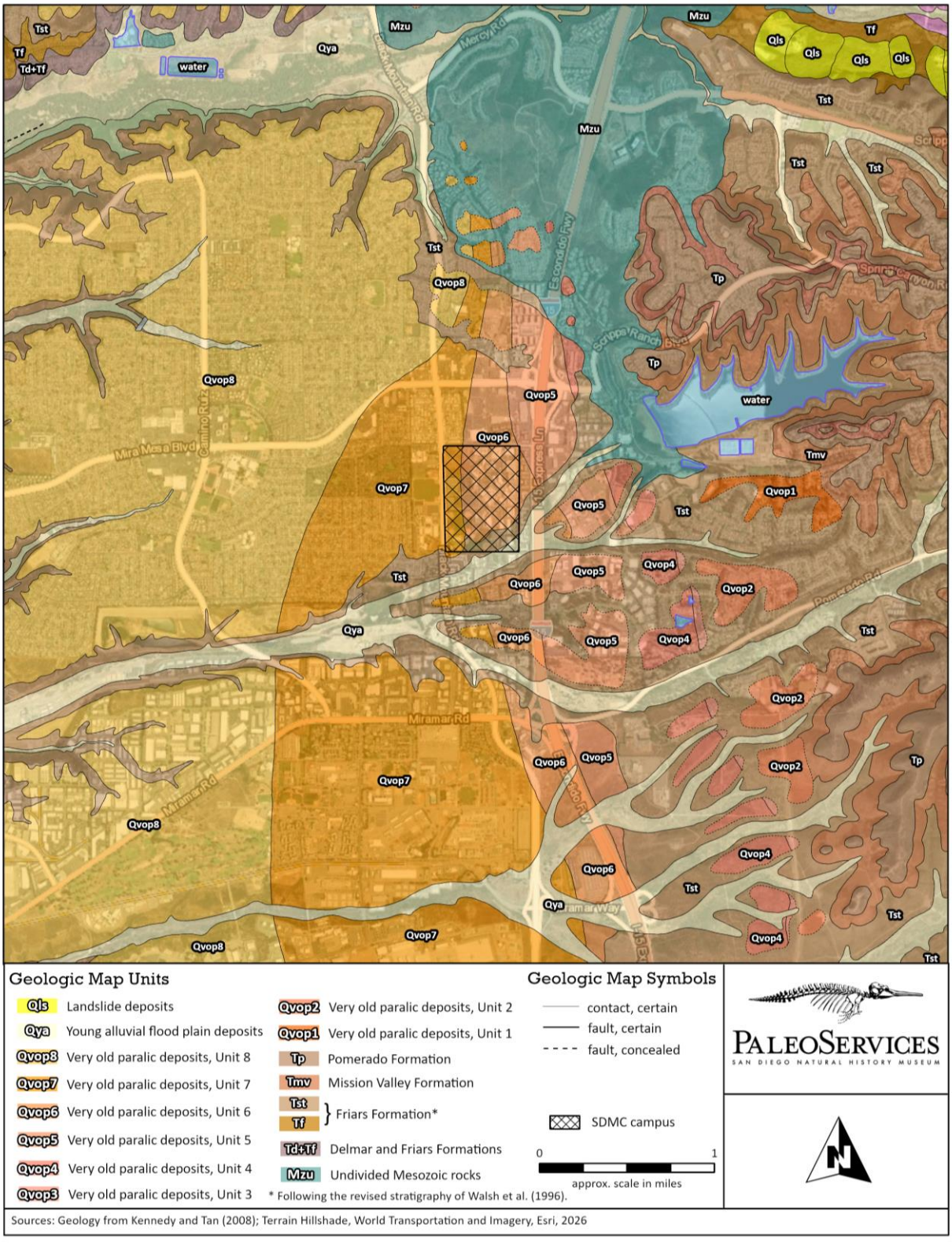


Figure 2. Geologic map of the SDMC campus, City of San Diego, California.

Underlying the Lindavista Formation and exposed in the walls of coastal valleys and canyons, including Carroll Canyon on the southern side of the SDMC campus, is an older geologic unit deposited during the middle Eocene. These strata are mapped by Kennedy and Tan (2008) as the Stadium Conglomerate, but paleontological evidence demonstrates that they in fact belong to the conglomerate tongue of the older Friars Formation (Walsh, 1996; Walsh et al., 1996). Kennedy and Moore (1971) divided the Eocene sedimentary sequence of coastal San Diego County into the late early and early middle Eocene La Jolla Group and late middle Eocene Poway Group, which together include nine geologic units. These Eocene geologic units record a series of intertonguing marine and terrestrial paleoenvironments deposited in a large depositional basin (the ancient San Diego Embayment) that spanned a relatively short lateral distance (east to west). This depositional basin was actively accumulating sediments over a period of approximately 10 million years (50 to 40 million years ago). A large river system occupied the eastern portion of the area, and to the west, these alluvial and fluvial paleoenvironments mixed with nearshore marine paleoenvironments in a river-dominated braid delta. Farther west were continental shelf and slope paleoenvironments. A submarine canyon system that was eroded into the ancient continental shelf allowed large volumes of coarse sediment to bypass the continental shelf and feed a growing submarine fan system on the deep bathyal seafloor to the west (Abbott, 1999).

Four geotechnical reports covering portions of the SDMC campus broadly confirm the mapped geology along with the presence of unmapped colluvium and artificial fill in this area (Geotechnics Incorporated, 2007; Ninyo & Moore, 2004, 2012, 2025). These reports characterized the Lindavista Formation (referred to as "very old paralic deposits" in these reports) here as consisting of yellowish brown, moderately to strongly cemented, silty sandstone to sandy cobble conglomerate (Ninyo & Moore, 2025). The conglomerate tongue of the Friars Formation (referred to as the Stadium Conglomerate in these reports) was characterized as moderately to strongly cemented sandstone and sandy cobble conglomerate (Ninyo & Moore, 2025). Colluvium, which was encountered at shallow depths in test pits around the A-100 building, was characterized as dark brown sandy clay with cobbles (Ninyo & Moore, 2012). Artificial fill measuring between less than one and 1.5 feet thick was observed in several borings in the vicinity of the A-100 building (Ninyo & Moore, 2012); at the English Gallery and Performing Arts Center Building site, it was limited to up to two inches of asphalt and three inches of aggregate base (Geotechnics Incorporated, 2007). No other geotechnical reports covering the SDMC campus were available for review.

4.1.2 Summary of Known Paleontological Resources

A search of the SDNHM paleontological collections database identified four fossil localities within a one-mile radius of the SDMC campus, none of which are located within the campus itself. Of these, two localities are from the Lindavista Formation and two localities are from the Friars Formation. These localities are discussed below. A list and map (Figure A1) of the localities are included in Confidential Appendix A.

Lindavista Formation: The SDNHM has two recorded fossil localities from the Lindavista Formation (referred to as "very old paralic deposits" in the geotechnical reports and as $Qvop_6$ equals the Black Mountain Terrace of Kern, in Kennedy and Tan, 2006) within a one-mile radius of the SDMC campus. These localities produced internal and external molds of at least six species of bivalves. Fossil localities are generally rare within the Lindavista Formation, but have produced remains of nearshore marine invertebrates (e.g., clams, scallops, snails, barnacles, and sand dollars) and sparse remains of sharks and baleen whales (Kennedy, 1973; Deméré and Walsh, 1993).

Friars Formation: The SDNHM has two recorded fossil localities from the Friars Formation (referred to as the Stadium Conglomerate in the geotechnical reports) located within a one-mile radius of the SDMC

campus, both of which are from the conglomerate tongue. These localities produced fossil remains of freshwater invertebrates (pulmonate snails) and terrestrial vertebrates (e.g., reptiles, opossums, insectivorans, rodents, protoceratid artiodactyls, and primates). A diverse assemblage of fossil mammals has been recovered from the Friars Formation in San Diego (as documented by Golz, 1976; Golz and Lillegraven, 1977; Novacek and Lillegraven, 1979; Stock, 1934; Walsh, 1991, 1996, 1997, 1998, 2000, 2010; Wilson, 1940a,b), including insectivorans (Walsh, 1998), primates (Gunnell, 1995; Rasmussen et al., 1995; Rose et al., 1999; Atwater and Kirk, 2018), rodents (Walsh, 1997, 2010), creodonts (Tomiya, 2011), carnivorans (Wesley and Flynn, 2003; Tomiya, 2013), brontotheres (Mihlbachler and Deméré, 2009), tapirs (Colbert, 2006), and artiodactyls (Theodor, 1999; Walsh, 2000). The Friars Formation has also produced well-preserved marine invertebrate assemblages dominated by species of warm water, shallow marine mollusks (Givens and Kennedy, 1979; Squires and Deméré, 1991), as well as localized concentrations of petrified wood and leaf compressions (Deméré and Walsh, 1993).

4.2 Results of the Paleontological Resource Assessment

Previously placed artificial fill is assigned no paleontological resource sensitivity based on the lack of original geographic and stratigraphic context associated with any redeposited fossils that may be present within these materials. Young alluvial flood plain deposits and colluvium are assigned a low paleontological resource sensitivity due to their relatively young geologic age and the recognition that any contained organic remains are likely conspecific with organisms inhabiting the area today. The Lindavista Formation is assigned a high paleontological resource sensitivity in the Mira Mesa area based on the recovery of rare but significant marine invertebrate and vertebrate fossils recovered from this geologic unit. The Friars Formation is assigned a high paleontological resource sensitivity based on the documented occurrence of diverse marine invertebrate and terrestrial vertebrate fossil assemblages preserved within this geologic unit. These paleontological resource potential ratings are summarized in Table 2 and their general extent is depicted in Figure 3 (mapped geologic units only).

Table 2. Summary of geologic units underlying the SDMC campus and their paleontological resource potential ratings.

Geologic Unit	Age	Paleontological Resource Sensitivity
Artificial fill	Recent	No/zero resource sensitivity
Young alluvial flood plain deposits and colluvium	Late Pleistocene to Holocene	Low resource sensitivity
Lindavista Formation	Early Pleistocene	High resource sensitivity
Friars Formation	Middle Eocene	High resource sensitivity

4.3 Results of the Paleontological Impact Analysis

The SDMC campus is primarily underlain by geologic units assigned a high paleontological resource sensitivity (the Lindavista Formation and Friars Formation), with some areas additionally underlain at the surface by unmapped geologic units assigned no paleontological resource sensitivity (previously placed fill deposits) or low paleontological resource sensitivity (young alluvial flood plain deposits). Only excavation activities within previously undisturbed deposits of the Lindavista Formation and/or Friars Formation have the potential to result in impacts to paleontological resources.

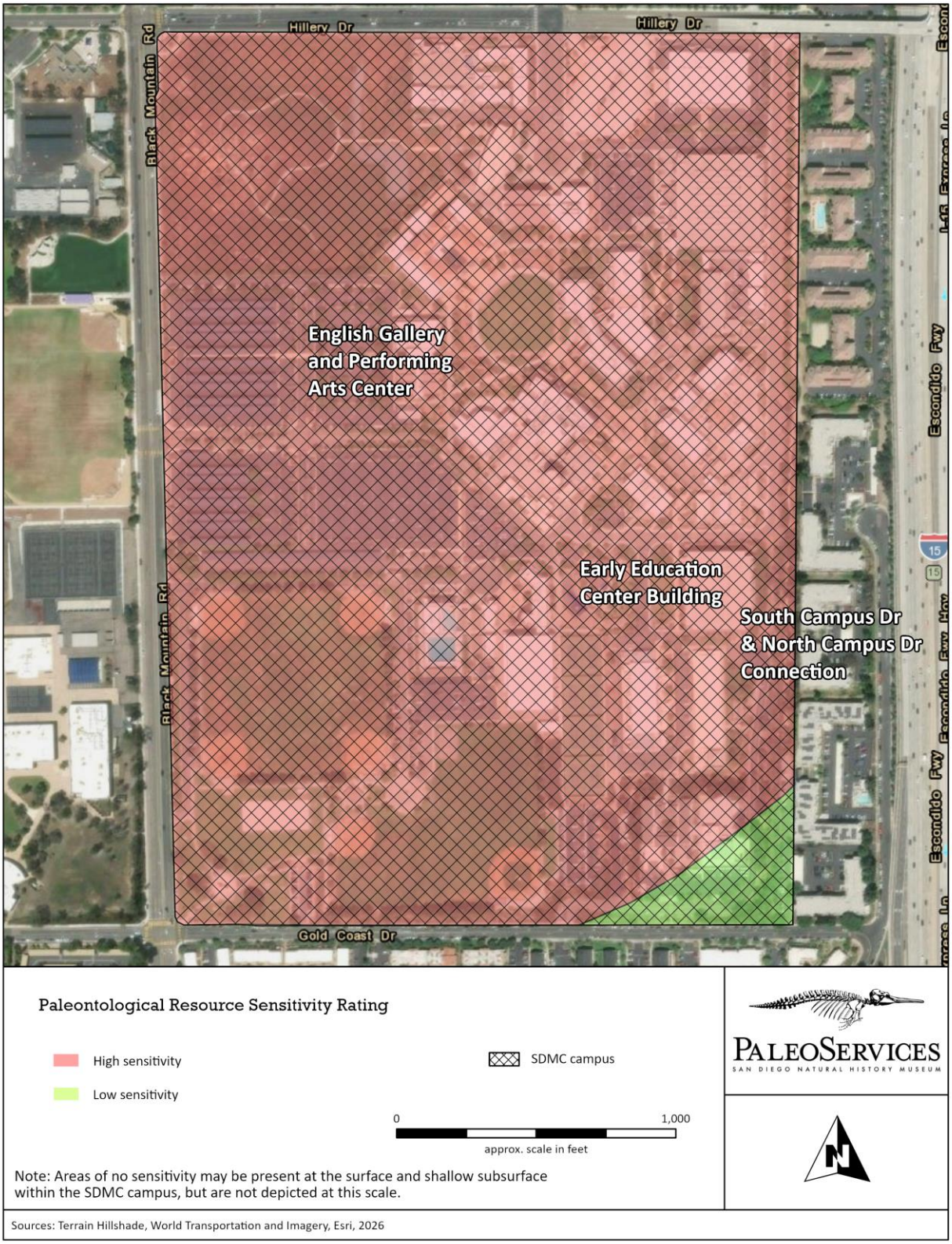


Figure 3. Paleontological resource sensitivity map of the SDMC campus, City of San Diego, California.

Improvements proposed under the SDMC Master Plan include replacement of existing aging facilities with new modern facilities, improvements to utility infrastructure and circulation, and interior renovations and minor construction at existing campus buildings:

- Generally, demolition of existing facilities would not require significant ground impacts to previously undisturbed bedrock deposits; most earthwork is anticipated to impact previously placed artificial fill that was imported during original construction of the facilities.
- Construction of replacement facilities is anticipated to involve ground disturbing activities such as grading to create level building pads, excavation for shallow and deep foundations, trenching for subgrade utilities, and borehole augering for foundations and retaining walls.
- Improvements to utility infrastructure and roads may involve minor grading, borehole augering for utility poles, and trenching for subgrade pipelines or electrical lines.
- Interior renovations and most minor construction occurring at existing campus buildings are not likely to result in significant ground disturbance, but the specific details of each project would need to be evaluated on a case-by-case basis.

For future projects proposed under the Master Plan, a mitigation framework is provided in Section 5.1 to evaluate and properly mitigate potential impacts to paleontological resources. The three short-term priority projects are not yet in the design stage and therefore precise construction plans and details about proposed locations, depths, volumes, and methods of excavation are not currently available for review. A preliminary impact analysis is provided below given these limitations.

4.3.1 English Gallery and Performing Arts Center Building

A geotechnical report covering this area reported less than half a foot of artificial fill overlying the Lindavista Formation (Geotechnics Incorporated, 2007).

This project is anticipated to involve demolition of the existing eastern portion of Lot 2. Demolition is likely to primarily impact previously placed artificial fill, and is considered unlikely to significantly impact previously undisturbed deposits of the Lindavista Formation. However, construction of the new building complex and installation of site utilities would likely involve site grading to prepare level building pads, excavation of footings, trenching, and other subgrade improvements that are anticipated to impact previously undisturbed deposits of the Lindavista Formation. **Therefore, construction of the English Gallery and Performing Arts Center Building project has the potential to result in impacts to paleontological resources.**

4.3.2 Early Education Center Building

No geotechnical reports covering the proposed Early Education Center Building site were available for review. Published geologic maps covering this area indicate that the project site is reported to be underlain by strata of the Lindavista Formation. It is assumed that previously placed artificial fill associated with construction of existing facilities is likely present as well.

This project is anticipated to involve demolition of two existing buildings and associated parking spaces. Demolition is likely to primarily impact previously placed artificial fill, and is considered unlikely to significantly impact previously undisturbed deposits of the Lindavista Formation. However, construction of the new Early Education Center Building and replacement of site utilities would likely involve site grading to prepare a level building pad, excavation of footings, trenching, and other subgrade improvements that are anticipated to impact previously undisturbed deposits of the Lindavista

Formation. **Therefore, construction of the Early Education Center Building project has the potential to result in impacts to paleontological resources.**

4.3.3 South Campus Drive and North Campus Drive Connection

No geotechnical reports covering the proposed connection site were available for review, but the geotechnical report for the adjacent A-100 building confirms the presence of artificial fill and strata of the Lindavista Formation (Ninyo & Moore, 2012). As the exact boundaries of this project have not been defined, it may also extend into an area where the Friars Formation is mapped at the surface.

This project is anticipated to involve construction of a new road segment connecting North Campus Drive and South Campus Drive. Construction of the new road would likely involve grading that is anticipated to impact previously undisturbed deposits of the Lindavista Formation and/or Friars Formation. **Therefore, construction of the South Campus Drive and North Campus Drive Connection project has the potential to result in impacts to paleontological resources.**

5.0 SDMC Master Plan Mitigation Framework

Consistent with the City of San Diego's Significance Determination Thresholds being applied for this project, potential impacts to paleontological resources are considered significant if a project would require over 1,000 cubic yards of excavation in a high resource sensitivity geologic deposit/formation/rock unit, or if excavation would occur on or near a previously documented fossil collection locality (i.e., within 100 feet of an existing fossil collection locality). No geologic units assigned a moderate resource sensitivity are present within the SDMC campus, so the additional threshold metric of 2,000 cubic yards is not applicable. While the city typically also employs a 10-foot depth threshold for required paleontological monitoring, because the SDMC campus has been previously graded and fossils have been recovered in near-surface exposures in this area, this depth threshold is not recommended for evaluating the potential impacts of proposed projects under the SDMC Master Plan. In its place, a project-specific depth threshold based on the depth of artificial fill in proposed areas of excavation may be defined upon review of site-specific geotechnical data.

If a project proposed under the SDMC Master Plan would exceed the city's defined thresholds of significance (i.e., if a project would require over 1,000 cubic yards of excavation in a high resource sensitivity geologic deposit/formation/rock unit, or if excavation would occur on or within 100 feet of an existing fossil collection locality), then impacts to paleontological resources are deemed to be potentially significant and construction monitoring would be required.

The following mitigation framework is provided to guide review of near-term and future projects proposed under the SDMC Master Plan.

5.1 Mitigation Framework for Future Projects

5.1.1 Impact Significance Determination

Implementation of the Master Plan, including development of individual near-term projects, would involve a variety of ground-disturbing activities, including grading, excavating, and trenching. The potential for encountering significant paleontological deposits or features during construction activities is considered high given that most of the SDMC campus is located within areas classified as having a high paleontological sensitivity. Therefore, the potential for destruction and loss of paleontological resources would be considered a potentially significant impact for near-term and future projects pursuant to the Master Plan.

5.1.2 Proposed Mitigation Measures

The following mitigation measures are designed to reduce potentially significant impacts to paleontological resources associated with projects proposed under the SDMC Master Plan. The steps outlined below are based on established industry best practices (SVP, 2010, 2025; Murphey et al., 2019). Implementation of the mitigation measures detailed below will reduce project-related impacts to paleontological resources to less-than-significant levels.

Mitigation Measure (MM) PALEO-1. Initial Project Review.

Project grading plans for projects located within previously undisturbed high sensitivity areas (Lindavista Formation and/or Friars Formation) shall be reviewed to determine the total cut volume associated with construction of the project. If available, a project-specific geotechnical investigation report shall be consulted to determine where and at what depths these geologic units would be impacted. In the absence of site-specific geotechnical data, it shall be assumed that unweathered deposits of the Lindavista Formation or Friars Formation are present at depths of 2 feet or more below existing grade. Finally, if a paleontological records search has not been conducted within one year of proposed project construction, an updated paleontological records search shall be requested from the SDNHM to determine whether there are documented fossil collection localities present within or within 100 feet of the site.

Based on the results of the above review, one of the following scenarios shall apply:

- If the total cut volume exceeds 1,000 cubic yards and excavation would exceed the project-specific depth threshold determined above, implementation of **MM PALEO-2** and **MM PALEO-3** shall be required.
- If the total cut volume is less than 1,000 cubic yards and excavation would exceed the project-specific depth threshold determined above and the project occurs on or within 100 feet of an existing fossil locality, implementation of **MM PALEO-2** and **MM PALEO-3** shall be required.
- If the total cut volume exceeds 1,000 cubic yards and excavation would not exceed the project-specific depth threshold determined above (regardless of proximity to existing fossil localities), implementation of MM PALEO-4 shall be required.
- If the total cut volume is less than 1,000 cubic yards and the project does not occur on or within 100 feet of an existing fossil collection locality (regardless of excavation depth), implementation of MM PALEO-4 shall be required.

MM PALEO-2. Monitoring.

Prior to the commencement of construction, a qualified Project Paleontologist shall be retained by SDCCD or its Designated Representative(s) to oversee the mitigation program (a Project Paleontologist is a person with a Ph.D. or Master's Degree in Paleontology or related field, and who has knowledge of San Diego County paleontology and documented experience in professional paleontological procedures and techniques). In addition, a regional fossil repository shall be designated to receive discovered fossils (because the Project is in the County of San Diego, the recommended repository is the San Diego Natural History Museum). The Project Paleontologist shall review available geotechnical data and project construction plans prior to the start of monitoring to determine precisely where and at what depths paleontological monitoring should occur.

The Project Paleontologist or a designated representative shall attend the Project pre-construction meeting to consult with the grading and excavation contractors and environmental and engineering staff concerning excavation schedules, paleontological monitoring requirements and field techniques, and safety issues.

A paleontological monitor (working under the direction of the Project Paleontologist) shall be on-site on a full-time basis during all earthwork impacting previously undisturbed deposits of the Lindavista Formation and/or Friars Formation to inspect exposures for unearthed fossils. Monitoring of the Friars Formation should include testing for the presence of microfossils, which can be accomplished by collecting and screenwashing test samples of potentially fossil-bearing sediment, as deemed appropriate by the Project Paleontologist. Monitoring may be reduced or terminated at the discretion of the Project Paleontologist based on the results of initial monitoring.

If no fossils are discovered during monitoring, an abbreviated summary report shall be prepared at the completion of monitoring and submitted to SDCCD to signal completion of the mitigation program.

MM PALEO-3. Treatment of Fossil Discoveries.

If fossils are discovered, the Project Paleontologist (or paleontological monitor) shall evaluate their significance, document, and recover them. In most cases, fossil recovery can be completed in a short period of time. However, some fossil specimens (e.g., a partial or complete large mammal skeleton) may require an extended salvage period. In these instances, the Project Paleontologist (or paleontological monitor) has the authority to temporarily direct, divert, or halt earthwork within 50 feet of the discovery site to allow recovery of fossil remains in a timely manner.

Fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, identified, and catalogued as part of the mitigation program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) in the designated fossil repository. Fossils shall be deposited in the designated fossil repository within 90 days of completion of monitoring unless the Project Paleontologist determines that more time is required to prepare, stabilize, and/or curate the recovered fossils and communicates this revised timeline to SDCCD and the designated fossil repository. Donation of the fossils shall be accompanied by financial support for initial specimen storage, provided by SDCCD or its Designated Representative(s).

If fossils were discovered and salvaged during monitoring, an expanded summary report shall be prepared in place of the abbreviated summary report required under MM PALEO-2. The report shall detail the results of the mitigation program, and shall include discussions of the methods used, stratigraphic section(s) exposed, recovered fossils and their significance, and an inventory list of catalogued fossils. The summary report shall be submitted to the designated fossil repository and to SDCCD to signal completion of the mitigation program.

MM PALEO-4. Unanticipated Fossil Discoveries.

If fossils are discovered during construction when a paleontological monitor is not on site (i.e., during earthwork that was not anticipated to encounter paleontological resources), a 50-foot buffer shall be established around the discovery site and work shall cease in this area. The construction contractor shall contact SDCCD and SDCCD shall contact a qualified Project Paleontologist to evaluate the discovery and its significance. The Project Paleontologist shall recommend whether further mitigation (i.e., monitoring of remaining earthwork and treatment of

the fossil discovery, as outlined in MM PALEO-2 and MM PALEO-3) is required. The Project Paleontologist shall document their recommendation in a memo submitted to SDCCD, after which work may resume in the location of the discovery.

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Appendix A (Confidential)

Paleontological records search results, SDNHM.

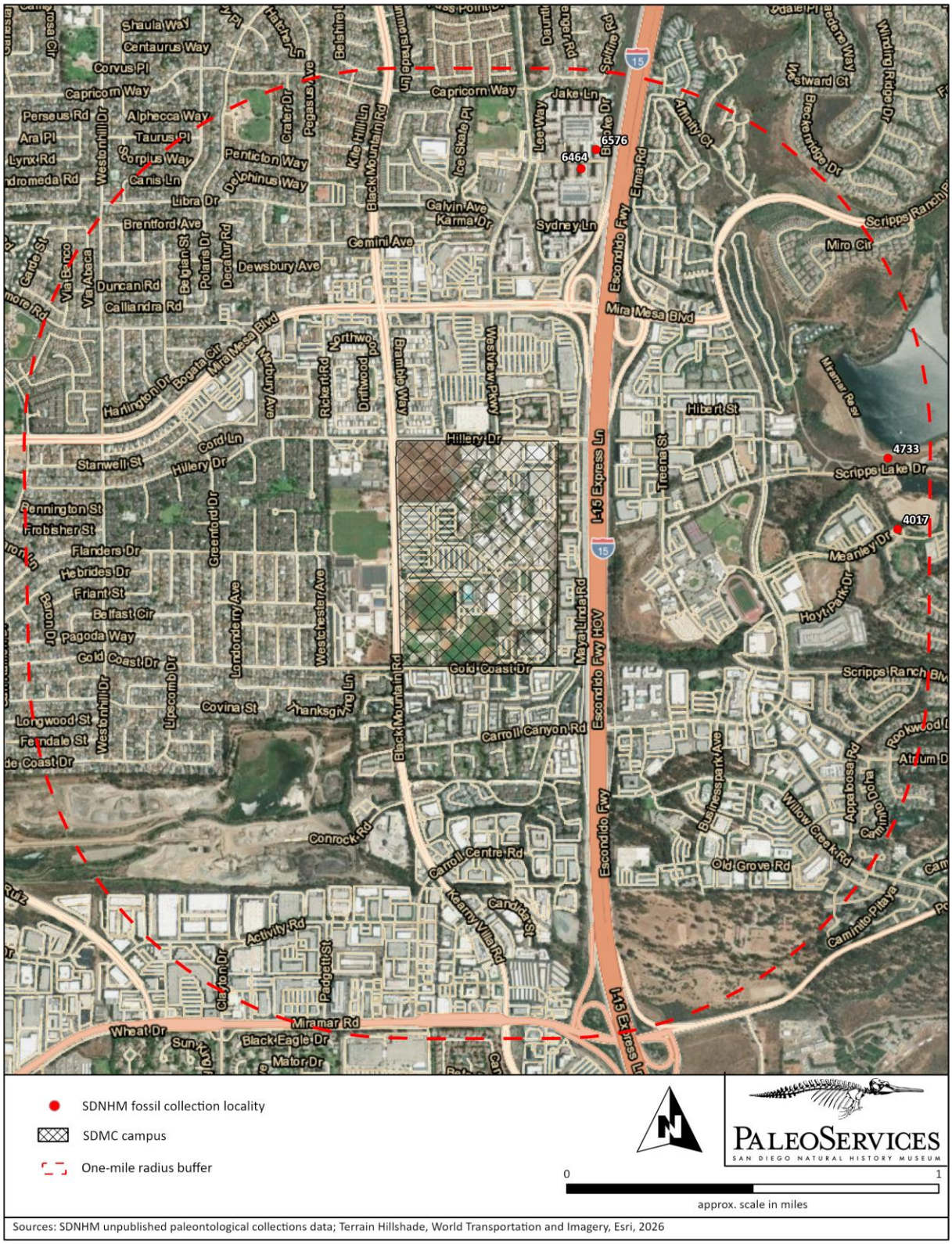


Figure A1. Fossil locality map, SDMC campus and vicinity, City of San Diego, California.

Appendix A: Locality List

San Diego Natural History Museum

Department of Paleontology

Locality number	Elevation (feet)	Geologic unit	Era	Period	Epoch
6464	504	Lindavista Formation	Cenozoic	Quaternary	early Pleistocene
6576	502	Lindavista Formation	Cenozoic	Quaternary	early Pleistocene
4017	616	Friars Formation, conglomerate tongue	Cenozoic	Paleogene	middle Eocene
4733	640	Friars Formation, conglomerate tongue	Cenozoic	Paleogene	middle Eocene

Appendix G. Noise Calculation Worksheet and Outputs

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TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number:
Project Name: Miramar College

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Linscott, Law, and Greenspan, April 2026
Community Noise Descriptor: L_{dn}: ____ CNEL: X

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

"-" = contour is located within the roadway right-of-way.
Distance is from the centerline of the roadway segment to the receptor location.

Analysis Condition / Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix: Medium Trucks	Vehicle Mix: Heavy Trucks	Distance from Centerline of Roadway: CNEL at 50 Feet	Distance to Contour: 70 CNEL	65 CNEL	60 CNEL	55 CNEL	Calc Dist	Traffic Volumes: Day	Eve	Night	MTd	HTd	MTe	HTe	MTn	HTn	Ref. Energy Leve: A	MT	HT	Adj	Dist Ld: A	MT	HT	Total	Le: A	MT	HT	Total	Ln: A	MT	HT	Total	DISTANCE TO CONTOUR (2): 70 CNEL	65 CNEL	60 CNEL	55 CNEL
Mira Mesa Blvd																																										
Black Mountain Rd to Westview Pkwy, existing	6	15	48,740	40	0.5	3.0%	2.0%	**76.7**	141	303	653	1,407	50	37,871	6,190	4,679	1,278	869	74	28	110	79	67.4	76.3	81.2	2.6	73.4	67.8	71.0	76.1	70.5	60.3	60.9	71.3	65.6	58.4	61.8	67.6	141	303	653	1407
Black Mountain Rd to Westview Pkwy, existing + project (buildout 2	6	15	50,885	40	0.5	3.0%	2.0%	**76.9**	145	312	672	1,448	50	39,538	6,462	4,885	1,335	907	77	29	115	82	67.4	76.3	81.2	2.6	73.5	68.0	71.2	76.3	70.7	60.5	61.0	71.5	65.7	58.6	62.0	67.8	145	312	672	1448
Black Mountain Rd																																										
Mira Mesa Blvd to Hillery Dr, existing	4	10	15,020	45	0.5	3.0%	2.0%	**70.9**	57	123	264	570	50	11,671	1,908	1,442	394	268	23	9	34	24	69.3	77.6	82.1	0.7	67.8	61.6	64.5	70.1	64.9	54.0	54.3	65.6	60.0	52.2	55.2	61.7	57	123	264	570
Mira Mesa Blvd to Hillery Drd, existing + project (buildout 2045)	4	10	15,681	45	0.5	3.0%	2.0%	**71.0**	59	126	272	586	50	12,184	1,991	1,505	411	279	24	9	35	25	69.3	77.6	82.1	0.7	68.0	61.8	64.6	70.3	65.1	54.2	54.5	65.8	60.2	52.3	55.4	61.9	59	126	272	586
Black Moutain Rd																																										
Hillery Dr to Gold Goast Dr, existing	4	10	19,830	45	0.5	3.0%	2.0%	**72.1**	69	148	318	686	50	15,408	2,518	1,904	520	353	30	11	45	32	69.3	77.6	82.1	0.7	69.0	62.8	65.7	71.3	66.1	55.2	55.5	66.8	61.2	53.4	56.4	63.0	69	148	318	686
Hillery Dr to Gold Goast Dr, existing + project (buildout 2045)	4	10	20,703	45	0.5	3.0%	2.0%	**72.2**	71	152	328	706	50	16,086	2,629	1,987	543	369	31	12	47	33	69.3	77.6	82.1	0.7	69.2	63.0	65.8	71.5	66.3	55.4	55.7	67.0	61.4	53.6	56.6	63.1	71	152	328	706
Westview Pkwy																																										
Mira Mesa Blvd to Hillery Dr, existing	4	10	15,020	40	0.5	3.0%	2.0%	**69.7**	-	103	222	478	50	11,671	1,908	1,442	394	268	23	9	34	24	67.4	76.3	81.2	0.7	66.3	60.8	64.0	69.0	63.4	53.2	53.8	64.2	58.5	51.4	54.7	60.6	48	103	222	478
Mira Mesa Blvd to Hillery Dr, existing + project (buildout 2045)	4	10	15,681	40	0.5	3.0%	2.0%	**69.9**	49	106	228	492	50	12,184	1,991	1,505	411	279	24	9	35	25	67.4	76.3	81.2	0.7	66.5	61.0	64.2	69.2	63.6	53.4	54.0	64.4	58.7	51.5	54.9	60.8	49	106	228	492
Hillery Dr																																										
Black Mountain Rd to Westview Pkwy, existing	4	10	15,190	35	0.5	2.0%	1.0%	**67.6**	-	74	160	345	50	11,803	1,929	1,458	266	135	15	4	23	12	65.1	74.8	80.0	0.7	64.8	58.2	60.5	66.8	61.8	50.6	50.3	62.4	57.0	48.7	51.3	58.5	35	74	160	345
Black Mountain Rd to Westview Pkwy, existing + project (buildout 2	4	10	15,858	35	0.5	2.0%	1.0%	**67.8**	-	77	165	355	50	12,322	2,014	1,522	277	141	16	5	24	13	65.1	74.8	80.0	0.7	65.0	58.4	60.7	67.0	62.0	50.8	50.5	62.6	57.2	48.9	51.4	58.7	36	77	165	355
Hillery Dr																																										
Westview Pkwy to N. Campus Dwy, existing	4	10	9,710	35	0.5	2.0%	1.0%	**65.6**	-	55	119	256	50	7,545	1,233	932	170	87	10	3	15	8	65.1	74.8	80.0	0.7	62.9	56.3	58.5	64.9	59.9	48.7	48.4	60.5	55.0	46.8	49.3	56.5	26	55	119	256
Westview Pkwy to N. Campus Dwy, existing + project (buildout 204	4	10	10,127	35	0.5	2.0%	1.0%	**65.8**	-	57	122	264	50	7,869	1,286	972	177	90	10	3	15	8	65.1	74.8	80.0	0.7	63.0	56.4	58.7	65.1	60.1	48.9	48.6	60.7	55.2	47.0	49.5	56.7	26	57	122	264

Summary

File Name on Meter	lxtdata_.039.s
File Name on PC	LxTse_0004861-20250424 095413-lxtdata_.039.ldbin
Serial Number	0004861
Model	SoundExpert® LxT
Firmware Version	2.404
G4 Version	5.5.0.71
User	
Location	
Job Description	
Note	

Measurement

Description	Miramar _ 1HR #1 _
Start	2025-04-24 09:54:13
Stop	2025-04-24 10:54:13
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2025-04-24 03:08:26
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	None
OBA Frequency Weighting	C Weighting
OBA Max Spectrum	Bin Max
Overload	122.8 dB

	A	C	Z
Under Range Peak	**79.4**	76.4	81.4 dB
Under Range Limit	**23.0**	24.7	31.4 dB
Noise Floor	13.9	15.6	22.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{eq}	60.9 dB
LAE	96.5 dB

EA	492.108	µPa²h		
LApk (max)	2025-04-24 10:11:43		94.5	dB
LASmax	2025-04-24 09:54:59		78.7	dB
LASmin	2025-04-24 10:51:13		44.1	dB
SEA	-99.94	dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApk > 135.0 dB	0	0.0 s
LApk > 137.0 dB	0	0.0 s
LApk > 140.0 dB	0	0.0 s

Community Noise	**LDN**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**LDEN**
	60.9	60.9	-99.94	60.9

LCeq	68.5	dB
LAeq	60.9	dB
LCeq - LAeq	7.6	dB
LAIeq	62.7	dB
LAeq	60.9	dB
LAIeq - LAeq	1.8	dB

	A		C	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	60.9		68.5	
LS(max)	78.7	2025/04/24 9:54:59		
LS(min)	44.1	2025/04/24 10:51:13		
Lpk(max)	94.5	2025/04/24 10:11:43		

Overload Count	0	
Overload Duration	0.0	s

Ln Percentiles

LA 5.00	65.9	dB
LA 10.00	64.5	dB
LA 33.30	60.6	dB
LA 50.00	58.0	dB
LA 66.60	54.8	dB
LA 90.00	48.1	dB

Calibration History

Preamp	**Date**	**dB re 1V/Pa**	**mV/Pa**	**6.3**
PRMLxT1L	2025-04-24 03:08:26	-29.07	35.19	43.84
PRMLxT1L	2025-04-22 13:36:08	-29.25	34.49	42.00
PRMLxT1L	2025-04-22 13:35:48	-29.21	34.64	55.29
PRMLxT1L	2025-04-21 08:50:45	-29.32	34.20	40.25

Summary

File Name on Meter	lxtdata_.040.s
File Name on PC	LxTse_0004861-20250424 111245-lxtdata_.040.ldbin
Serial Number	0004861
Model	SoundExpert® LxT
Firmware Version	2.404
G4 Version	5.5.0.71
User	
Location	
Job Description	
Note	

Measurement

Description	Miramar _ 1HR #2 _
Start	2025-04-24 11:12:45
Stop	2025-04-24 12:12:45
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2025-04-24 03:08:26
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	None
OBA Frequency Weighting	C Weighting
OBA Max Spectrum	Bin Max
Overload	122.8 dB

	A	C	Z
Under Range Peak	**79.4**	76.4	81.4 dB
Under Range Limit	**23.0**	24.7	31.4 dB
Noise Floor	13.9	15.6	22.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{eq}	49.4 dB
LAE	85.0 dB

EA		34.839	µPa²h	
LApk (max)	2025-04-24 11:41:49		87.2	dB
LASmax	2025-04-24 11:15:32		68.0	dB
LASmin	2025-04-24 11:33:34		45.2	dB
SEA		-99.94	dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApk > 135.0 dB	0	0.0 s
LApk > 137.0 dB	0	0.0 s
LApk > 140.0 dB	0	0.0 s

Community Noise	**LDN**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**LDEN**
	49.4	49.4	-99.94	49.4

LCeq	60.1	dB	
LAeq	49.4	dB	
LCeq - LAeq	10.7	dB	
LAIeq	50.9	dB	
LAeq	49.4	dB	
LAIeq - LAeq	1.5	dB	

	A		C	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	49.4		60.1	
LS(max)	68.0	2025/04/24 11:15:32		
LS(min)	45.2	2025/04/24 11:33:34		
Lpk(max)	87.2	2025/04/24 11:41:49		

Overload Count	0	
Overload Duration	0.0	s

Ln Percentiles

LA 5.00	50.6	dB
LA 10.00	50.1	dB
LA 33.30	49.3	dB
LA 50.00	48.9	dB
LA 66.60	48.4	dB
LA 90.00	47.2	dB

Calibration History

Preamp	**Date**	**dB re 1V/Pa**	**mV/Pa**	**6.3**
PRMLxT1L	2025-04-24 03:08:26	-29.07	35.19	43.84
PRMLxT1L	2025-04-22 13:36:08	-29.25	34.49	42.00
PRMLxT1L	2025-04-22 13:35:48	-29.21	34.64	55.29
PRMLxT1L	2025-04-21 08:50:45	-29.32	34.20	40.25

Summary

File Name on Meter	lxtdata_.041.s
File Name on PC	LxTse_0004861-20250424 123808-lxtdata_.041.ldbin
Serial Number	0004861
Model	SoundExpert® LxT
Firmware Version	2.404
G4 Version	5.5.0.71
User	
Location	
Job Description	
Note	

Measurement

Description	Miramar _ 1HR #3 _
Start	2025-04-24 12:38:08
Stop	2025-04-24 13:38:08
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2025-04-24 03:08:26
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	None
OBA Frequency Weighting	C Weighting
OBA Max Spectrum	Bin Max
Overload	122.8 dB

	A	C	Z
Under Range Peak	**79.4**	76.4	81.4 dB
Under Range Limit	**23.0**	24.7	31.4 dB
Noise Floor	13.9	15.6	22.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{eq}	57.0 dB
LAE	92.6 dB

EA	200.475	µPa²h	
LApk (max)	2025-04-24 13:26:02	90.1	dB
LASmax	2025-04-24 13:26:05	72.8	dB
LASmin	2025-04-24 13:00:11	50.2	dB
SEA	-99.94	dB	

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApk > 135.0 dB	0	0.0 s
LApk > 137.0 dB	0	0.0 s
LApk > 140.0 dB	0	0.0 s

Community Noise	**LDN**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**LDEN**
	57.0	57.0	-99.94	57.0

LCeq	66.6	dB
LAeq	57.0	dB
LCeq - LAeq	9.6	dB
LAIeq	58.2	dB
LAeq	57.0	dB
LAIeq - LAeq	1.2	dB

	A		C	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	57.0		66.6	
LS(max)	72.8	2025/04/24 13:26:05		
LS(min)	50.2	2025/04/24 13:00:11		
Lpk(max)	90.1	2025/04/24 13:26:02		

Overload Count	0	
Overload Duration	0.0	s

Ln Percentiles

LA 5.00	60.1	dB
LA 10.00	58.5	dB
LA 33.30	56.9	dB
LA 50.00	56.2	dB
LA 66.60	55.6	dB
LA 90.00	54.0	dB

Calibration History

Preamp	**Date**	**dB re 1V/Pa**	**mV/Pa**	**6.3**
PRMLxT1L	2025-04-24 03:08:26	-29.07	35.19	43.84
PRMLxT1L	2025-04-22 13:36:08	-29.25	34.49	42.00
PRMLxT1L	2025-04-22 13:35:48	-29.21	34.64	55.29
PRMLxT1L	2025-04-21 08:50:45	-29.32	34.20	40.25

Summary

File Name on Meter	lxtdata_.042.s
File Name on PC	LxTse_0004861-20250424 135759-lxtdata_.042.ldbin
Serial Number	0004861
Model	SoundExpert® LxT
Firmware Version	2.404
G4 Version	5.5.0.71
User	
Location	
Job Description	
Note	

Measurement

Description	Miramar _ 1HR #4 _
Start	2025-04-24 13:57:59
Stop	2025-04-24 14:57:59
Duration	01:00:00.0
Run Time	01:00:00.0
Pause	00:00:00.0
Pre-Calibration	2025-04-24 03:08:26
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1L
Microphone Correction	Off
Integration Method	Linear
OBA Range	Normal
OBA Bandwidth	None
OBA Frequency Weighting	C Weighting
OBA Max Spectrum	Bin Max
Overload	122.8 dB

	A	C	Z
Under Range Peak	**79.4**	76.4	81.4 dB
Under Range Limit	**23.0**	24.7	31.4 dB
Noise Floor	13.9	15.6	22.3 dB

	First	Second	Third
Instrument Identification			

Results

LA_{eq}	55.3 dB
LAE	90.9 dB

EA	135.538	µPa²h		
LApk (max)	2025-04-24 14:10:44		89.3	dB
LASmax	2025-04-24 14:05:02		70.3	dB
LASmin	2025-04-24 14:18:32		46.9	dB
SEA	-99.94	dB		

	Exceedance Counts	Duration
LAS > 85.0 dB	0	0.0 s
LAS > 115.0 dB	0	0.0 s
LApk > 135.0 dB	0	0.0 s
LApk > 137.0 dB	0	0.0 s
LApk > 140.0 dB	0	0.0 s

Community Noise	**LDN**	**LDay 07:00-22:00**	**LNight 22:00-07:00**	**LDEN**
	55.3	55.3	-99.94	55.3

LCeq	65.7	dB
LAeq	55.3	dB
LCeq - LAeq	10.4	dB
LAIeq	57.1	dB
LAeq	55.3	dB
LAIeq - LAeq	1.8	dB

	A		C	
	dB	**Time Stamp**	**dB**	**Time Stamp**
Leq	55.3		65.7	
LS(max)	70.3	2025/04/24 14:05:02		
LS(min)	46.9	2025/04/24 14:18:32		
Lpk(max)	89.3	2025/04/24 14:10:44		

Overload Count	0	
Overload Duration	0.0	s

Ln Percentiles

LA 5.00	60.5	dB
LA 10.00	57.5	dB
LA 33.30	52.0	dB
LA 50.00	50.9	dB
LA 66.60	50.1	dB
LA 90.00	48.8	dB

Calibration History

Preamp	**Date**	**dB re 1V/Pa**	**mV/Pa**	**6.3**
PRMLxT1L	2025-04-24 03:08:26	-29.07	35.19	43.84
PRMLxT1L	2025-04-22 13:36:08	-29.25	34.49	42.00
PRMLxT1L	2025-04-22 13:35:48	-29.21	34.64	55.29
PRMLxT1L	2025-04-21 08:50:45	-29.32	34.20	40.25

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Appendix H. VMT Analysis

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VEHICLE MILES TRAVELED ANALYSIS

MIRAMAR COLLEGE MASTER PLAN

San Diego, California
June 24, 2026

LLG Ref. 3-25-4138

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VEHICLE MILES TRAVELED ANALYSIS

MIRAMAR COLLEGE MASTER PLAN

City of San Diego, California
June 24, 2026

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has prepared this Vehicle Miles Traveled (VMT) Analysis pursuant to the California Environmental Quality Act (CEQA) for the Miramar College Master Plan (Project). The college is located within the Mira Mesa community of the City of San Diego, which is located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the Interstate 805 (I-805) and Interstate 15 (I-15) corridors.

The following sections are included in this report:

- Project Description
- Project Trip Generation Calculations
- VMT Analysis Methodology
- VMT Screening Criteria
- VMT Assessment Results
- Project Level Screening Assessment
- Cumulative Level Screening Assessment
- VMT Analysis Conclusions

2.0 PROJECT DESCRIPTION

2.1 Campus Location

Miramar College campus, which is approximately 114 acres in size, is located at 10440 Black Mountain Road, within the City of San Diego, CA. The campus is located in the northern sector of the District in the neighborhood of Mira Mesa, located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the Interstate 805 (I-805) and Interstate 15 (I-15) corridors. The project site is on Assessor's Parcel Numbers 3181200300 and 3181200400.

The campus is surrounded by a mix of residential, commercial, educational, and open space uses: Multi-family residential and commercial uses are to the north; institutional facilities (Walker Elementary School and Wangenheim Middle School) are to the west; multi-family residential uses are to the south; and multi-family residential uses are to the east, with the Interstate 15 corridor and Scripps Ranch High School farther east.

2.1.1 *Existing Land Uses*

The project site is currently occupied by various academic and job training buildings, athletic and recreational facilities, open space, and internal campus roads and parking lots. Campus buildings are on the eastern portion of the project site, with academic buildings in the northeastern portion and job training buildings (i.e., police academy and aviation building) in the southeastern portion. The academic buildings surround Compass Point, a circular courtyard, creating a campus core. The northwestern portion of the project site is reserved as a 12-acre vernal pool preserve with unpaved interpretive trails. Various athletic and recreational facilities are in the southwestern portion of the project site, including Hourglass Field (baseball/softball fields), an aquatic center, tennis courts, a gymnasium, sand volleyball courts, and a community park.

Parking lots are scattered throughout the campus: Surface parking lots (Lot 1 and Lot 2) are on the western side of the campus, a surface parking lot is in the northeastern portion of the campus (Lot 3), a parking garage (PS-3) is in the northeastern portion of the campus along North Campus Drive, a parking garage (PS-4) is in the southeastern portion of campus along South Campus Drive, and a surface parking lot is east of Hourglass Field (Lot A).

Internal campus streets include Miramar College Driveway, North Campus Drive, and South Campus Drive. A transit station that serves multiple bus lines is in the northeastern portion of the project site and accessible via Hillery Drive.

2.1.2 *Campus Access*

The existing campus has a total of six (6) access points as listed below:

- Main entry at Westview Parkway & Hillery Drive
- Hillery Drive & Miramar College Transit Station Driveway (Buses Only)
- N Campus Drive & Hillery Drive
- Miramar College Driveway & Black Mountain Road

- Black Mountain Road & Lot #2 Driveway
- Gold Coast Drive & S Campus Drive

Figure 2–1 shows the Campus Vicinity Map, ***Figure 2–2*** shows a more detailed Project Area Map.

2.2 Project Background

The San Diego Community College District (District) is a community college district serving the City of San Diego (City) in central San Diego County (County). The District includes three credit colleges (San Diego City College, Miramar College, and Miramar College) and the state's only free-standing noncredit college (San Diego College of Continuing Education). The District is the third largest public community college district in California, serving approximately 90,000 students annually across these colleges.

2.2.1 *Miramar College Facilities Path to 2035 Master Plan*

The Miramar College Facilities Path to 2035 (Master Plan, MP), dated April 18, 2022, details proposed campus-wide improvements at Miramar College to replace aging buildings and enhance campus connectivity. The designs and concepts presented in the Master Plan are conceptual and intended to serve as a framework for the future detailed design of campus improvements as funding becomes available.

2.2.2 *Measure HH Funding*

The District is undertaking a comprehensive improvement and building program to make upgrades and repairs to existing buildings and construct new facilities to improve the safety and educational experience of students, faculty, and staff at several campuses in accordance with Measure HH. In 2024, voters passed the $3.5 billion Measure HH Bond Program to provide funding to upgrade, repair, and renovate classrooms and facilities at Miramar, San Diego City, Mesa, and Continuing Education Colleges.

2.2.3 *Campus Population Growth*

As of Fall 2025, 6,101 students were enrolled in on-site courses at Miramar College. An additional 11,057 students were enrolled in either off-site programs (i.e., high school courses receiving District credits) or online courses. Students participating in off-site and online courses register online; some students may visit the campus one to two times per semester, typically prior to on-campus courses starting and outside of peak on-campus hours. As these students do not regularly attend the physical Miramar College campus or use campus facilities, their presence does not contribute to campus-wide operational environmental impacts and the analysis in this study focuses on the on-campus student population.

Current enrollment and historic growth rates from 1973 through 2023 indicate enrollment growth of approximately 1.4 percent per year on average. For purposes of this study, a 1.5 percent annual growth rate has been selected to ensure that the environmental analysis accounts for reasonably foreseeable changes in enrollment and campus development over the next 20 years. This growth rate reflects the potential for attracting and accommodating additional students in on-campus courses through

implementation of planned improvements to campus facilities, academic offerings, and student services, while also providing a conservative approach for environmental analysis and ensuring that the PEIR addresses potential impacts associated with continued on-campus enrollment growth. Based on applying an annual growth rate of 1.5 percent growth to the on-campus population per year, 8,217 on-campus students are anticipated to attend Miramar College in 2045, an increase of 2,116 on-campus students compared to baseline (Fall 2025) conditions.

Employee growth is anticipated to maintain the current student-to-staff ratio, which reflects established operational standards for delivering academic programs and student services at Miramar College.

2.3 Project Components

The Project consists of the demolition, construction, and renovation of existing campus buildings and facilities on the 114-acre campus. The project would involve the demolition of approximately 49,398 square feet of existing buildings, construction of approximately 253,500 square feet of new buildings, and renovation of approximately 141,210 square feet of existing buildings. The project would also provide various outdoor space enhancements, athletic field improvements, and pedestrian and roadway renovations. It is assumed that as facilities are constructed and modernized, more students would be attracted to on-campus programs. Based on historic growth across District campuses, it is assumed the campus would experience a 1.5 percent growth of on-campus students per year.

The intention of the Master Plan is to develop a campus that works holistically and seamlessly to achieve campus goals. The exact architectural programming and design of each project would be developed during project implementation in coordination with user groups. Below describes projects from the Master Plan that are anticipated to be constructed in the near term as they have identified funding and are in the design process. No specific timing or phasing is identified for the remaining campus-wide improvements and long-term projects. These improvements would be designed and implemented as funding is available and program needs are reprioritized.

Campus-Wide Improvements

The Master Plan identifies campus-wide projects that would improve circulation and utilities across campus consistent with the vision of the Master Plan. These improvements would be incorporated into specific projects or as holistic campus improvement programs.

Related to utilities, replacement or upgrade of existing utility infrastructure would occur on an as-needed basis, primarily with construction of new facilities. As part of the campus goal to become more sustainable, ongoing improvements would occur for water demand efficiency, waste management, power generation, telecommunication infrastructure, and outdoor lighting.

Pedestrian improvements across campus may include establishing a hierarchy for pedestrian circulation, including promenades and connecters using material palettes that are distinct from other circulation spaces. This may include additional pedestrian pole lights, benches, consistent hardscape

materials, and uniform landscaping and tree species. New campus signage, art, and wayfinding signage would also be incorporated across the campus.

Interior renovations to accommodate programming adjustments, enhance technology, upgrade mechanical systems, or improve building accessibility could occur throughout existing campus buildings. Minor construction would also occur to repurpose existing exterior areas for outdoor classrooms, study areas, or leisure seating.

Near-Term Improvements

Performing Arts Center, English and Gallery Building

A new 115,000-gsf Performing Arts Center, English and Gallery Building complex is proposed in the northwest portion of campus. The existing eastern portion of Lot 2, consisting of 210 parking spaces, would be demolished to make way for the proposed building. The project would also include the removal of approximately 30 trees. The new two-story building complex, which would have a height of approximately 75 feet, would host English, Art and Music classes along with a new approximately 300-seat Performing Arts Center. The Performing Arts Center would allow for a new academic program, as the existing campus does not include a designated space for performing arts. The Performing Arts Center would provide space for the Humanities programs and would serve the surrounding community through hosting events, gallery shows, and performances that are open to guests outside of Miramar College. The placement of the building on the western perimeter of campus would serve as a welcoming gateway to the campus.

Early Education Center Building

The proposed Early Education Center Building would include the demolition of the existing 6,876-gsf Child Development Center F-2 Building and removal of the drive aisle (and associated 16 parking spaces) located east of the existing building. The project would also include the relocation of existing underground utilities and removal of approximately 10 trees. The proposed one-story Early Education Center Building would be approximately 18,500 gsf with a maximum height of approximately 40 feet. The building would include administrative uses, adult learning classrooms, and early education classrooms for infants, toddlers, and pre-school children. A secure outdoor play yard and open space would be located on the western portion of the site. A new drop-off area would be constructed to the south of the proposed building.

Long-Term Projects

Public Safety A-2 Building Modernization

Due to the aging condition of the Public Safety Police Academy A-2 Building, the project would include modernization and renovation of the existing building, totaling approximately 32,210-gsf. Building renovations would include new energy-efficient lighting; ceilings; paint; flooring; casework; stairwells; and heating, ventilation, and air conditioning systems, as well as required accessibility and structural upgrades.

Heavy Duty Diesel Technology C-1 Building
A new 30,000-gsf Heavy Duty Diesel Technology (HDDT) Building is proposed to replace the existing 16,581-gsf Heavy Duty Diesel Technology C-1 Building on the east side of campus. While a HDDT is a building that currently exists on campus, it is an aging building that no longer serves the needs of the program or advancing technology.

Welcome and Multicultural Center Building
A new 45,000-gsf Welcome and Multicultural Center Building is proposed to replace the existing 25,941-gsf English I Building in the center of campus and the demolition of the existing 10,080-gsf Student Resource and Welcome Center K-2 Building. While the Welcome Center is a building that currently exists on campus and would be relocated to this more centralized proposed space, a Multicultural Center is not currently provided on campus and would provide students and visitors with a welcoming and inclusive environment near the main western entrance of campus.

Parking Structure with Athletic Facilities
A new 300-space parking structure is proposed to the east of Hourglass Field. To provide space for the proposed parking structure, the existing Lot A (91 parking spaces) and tennis courts (1.35 acres) would be demolished. Due to the proximity to the existing Athletics buildings and Hourglass Field the proposed parking structure would include a synthetic grass athletic field and tennis courts on the roof of the structure to add usable square footage to the existing athletics program. The proposed parking structure would serve as a connector piece, linking together the change in topography between the north and south ends of the structure.

Automotive and Science S-2 through S-6 Building Modernization
Due to the aging condition of Automotive and Science S-2 through S-6 Buildings, the project would include modernization and renovation of the five existing science and automotive buildings, totaling approximately 109,000 gsf. Building renovations would include new energy-efficient lighting; ceilings; paint; flooring; casework; stairwells; and heating, ventilation, and air conditioning systems, as well as required accessibility and structural upgrades.

Athletics Building and Courts
A new 25,000-gsf Athletics Building is proposed in the southern portion of campus. The existing basketball court and approximately 1.30-acres of the eastern portion of Hourglass Field (south of the existing gym) would be demolished for this project. The proposed Athletics Building would include a gym, locker rooms, classrooms, and training rooms and provide flexible spaces to meet the evolving needs of the athletics program. A new outdoor basketball court and pickleball court would be constructed to support the proposed Athletics Building.

Hourglass Field Modernization
Modernization improvements are proposed for Hourglass Field located in the southwestern portion of campus. Improvements would include natural turf replacement and leveling of the turf to eliminate current trip hazards due to the existing conditions of the field. Improvements would also include

upgrading the current field lighting with more energy efficient lighting. It is anticipated that no changes would occur related to the use or hours of operation of the fields compared to existing conditions.

STEM Lab and Student Health Center Building
A new 20,000-gsf STEM Lab and Student Health Center Building is proposed in the northern portion of campus. The existing Lot 3, consisting of 89 parking spaces, would be demolished for this project. The proposed STEM Lab and Student Health Center Building would contain mathematics, biological, exercise, and physical sciences labs that would be located near the existing Science S-5 and S-6 Buildings, allowing for a direct connection between the science functions on campus. The proposed building would also include a Student Health Center that would include physical health and mental health services for the campus community.

North Campus Drive Street Parking
North Campus Drive is located on the eastern boundary of campus and connects to Hillery Drive, located to the north of campus. Improvements to North Campus Drive would include the widening of the existing two-lane street to include approximately 20 additional parking spaces along the eastern side of the road.

Vernal Pool Community Trail Extension
The northwestern portion of campus includes a 12-acre gated vernal pool preserve with interpretive trails. The existing trails consist of boardwalks and decomposed granite pathways with informational signage throughout. Improvements in this area would include an extension to the existing trail that would include elevated walks and additional viewing platforms.

2.3.1 *Increase in On Campus Students*

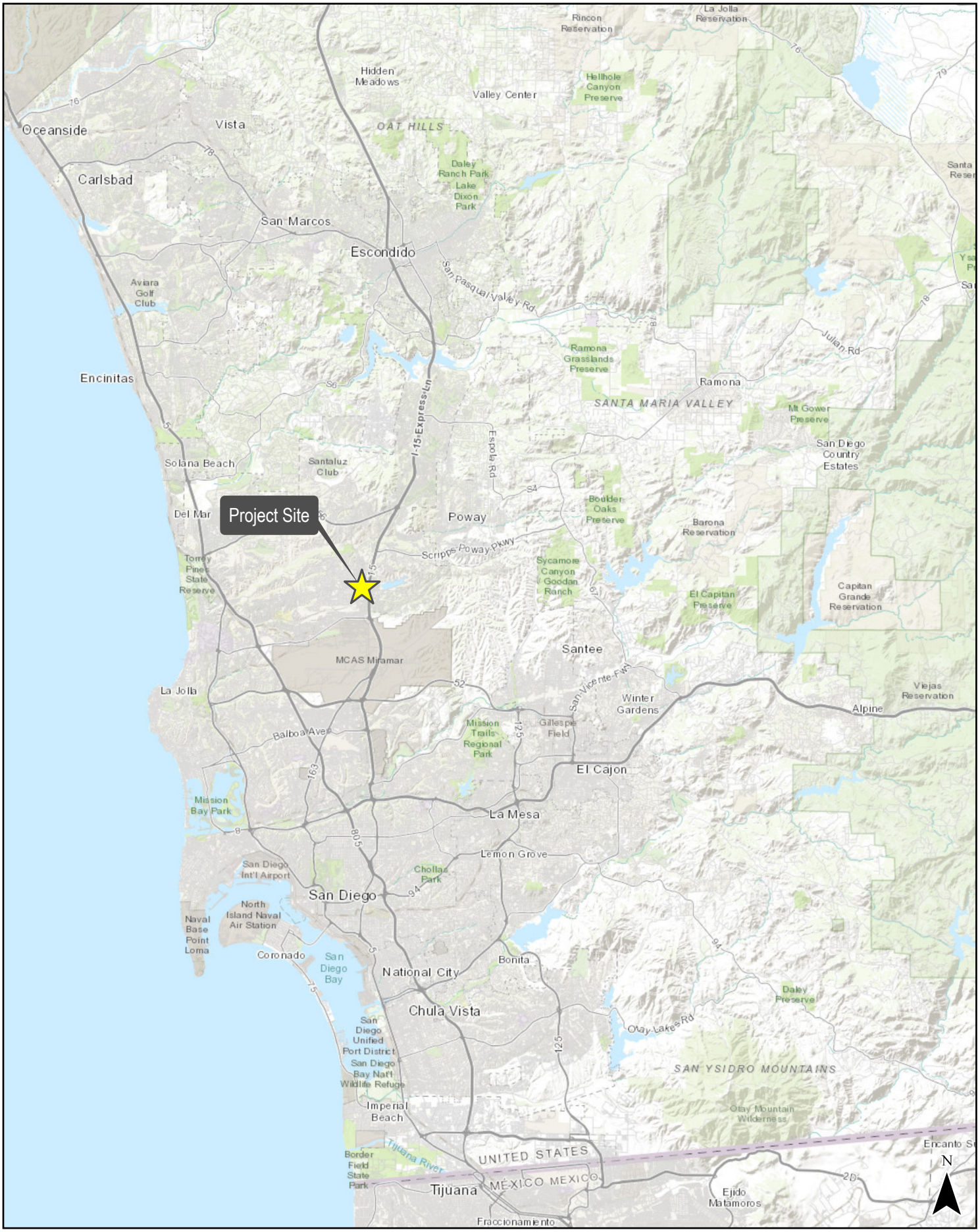
This study specifically analyzes the Project's effects to the local circulation system associated with the proposed increase in on-campus students outlined in *Section 2.2.3*, as opposed to specific infrastructure or planning changes that are proposed as a part of the Project. This is consistent with guidance provided by the Institute of Traffic Engineers (ITE) in their *Trip Generation Manual* (12th Edition, 2025), which notes that acreage, floor space, staff, and parking accommodations can vary widely with the populations served and the social and economic characteristics of the area and therefore the number of students may be the most reliable independent variable on which to establish a trip generation estimate. As noted in *Section 2.2.3*, an increase of 2,116 on-campus students compared to baseline (Fall 2025) conditions is expected over 20 years as part of the Project.

2.3.2 *Miramar College Driveway Modification*

Miramar College Driveway is a main access point onto campus. Currently, the road stretches from Black Mountain Road on the western boundary of campus and proceeds in a southeastern direction through the center of campus to the existing Parking Structure PS-4, located on the eastern boundary of campus. The project would include the addition of a traffic circle on Miramar College Driveway at the existing intersection between Lot 1 and Lot 2, and the closing of Miramar College Driveway to the east of this proposed traffic circle. With the proposed traffic circle, cars would either be routed north to Lot 2 and the proposed Performing Arts Center, English, and Gallery Building, or routed

south to Lot 1. While the eastern portion of Miramar College Driveway would be closed to the public, it would remain as a controlled vehicle accessway, utilized as a fire lane and for maintenance access. By closing this eastern portion of Miramar College Driveway, pedestrian connections would be strengthened between the north and south ends of campus. This controlled vehicle access through campus would allow for a pedestrian-friendly walkable campus.

These proposed circulation modifications are intended to enhance internal campus connectivity and are not anticipated to result in a change to existing regional or site-access traffic patterns. Because the primary access points to the campus remain consistent, these refinements do not affect the assumed trip distribution, project-related traffic volumes, or the underlying assumptions of the transportation analysis.



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SanGIS, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Figure 2-1
Vicinity Map



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Figure 2-2

Project Area Map

MIRAMAR COLLEGE MASTER PLAN

3.0 PROJECT TRIP GENERATION CALCULATIONS

The section below provides a detailed description of the trip generation increase due to the Project. As noted in *Section 2.3.1*, this study specifically analyzes the Project's effects to the local circulation system associated with the proposed increase in on-campus students outlined in *Section 2.2.3*, as opposed to specific infrastructure or planning changes that are proposed as a part of the Project. This is consistent with guidance provided by the Institute of Traffic Engineers (ITE) in their Trip Generation Manual (12th Edition, 2025), which notes that acreage, floor space, staff, and parking accommodations can vary widely with the populations served and the social and economic characteristics of the area and therefore the number of students may be the most reliable independent variable on which to establish a trip generation estimate.

As noted in *Section 2.2.*3, an increase of 2,116 'on-campus students' compared to baseline (Fall 2025) conditions is expected as part of the Project, over a 20-year period. 'Off-Campus' students enrolled in either off-site programs (i.e., high school courses receiving District credits) or online courses do not regularly attend the physical Miramar College campus or use campus facilities and are therefore not accounted for in this analysis.

3.1 Trip Generation Rate Comparison

The following sources were reviewed to determine the appropriate trip generation rates for the increase in on-campus students associated with the Project:

- *City of San Diego* - The City of San Diego *Trip Generation Manua*l, May 2003 provides a rate of **1.6 ADT per student** for the 'Community College (2 years)' land use type.
- *SANDAG* - SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002, provides a rate of **1.2 ADT per student** for the 'Junior College (2 years)' land use type.
- *ITE*- The ITE Trip *Generation Manual*, 12th Edition, August 2025, provides a rate of **1.15 ADT per student** for 'Junior/Community College (Land use code 540)' land use type.

The City of San Diego Trip Generation Manual indicates that the Community College trip generation rate is based on data originally developed by SANDAG. As such, the City rate ultimately reflects the same underlying dataset used to develop the SANDAG trip generation relationship. SANDAG college rates are based on data collected in the 1970s, and therefore, both the City and SANDAG rates are based on very old travel behavior patterns. In contrast, the ITE *Trip Generation Manual* (12th Edition, 2025) reflects a substantially more recent dataset compiled from observed trip generation studies across multiple sites.

After careful consideration, the ITE trip rate of 1.15 ADT per student was selected for use in calculating the Project trip generation. The ITE rate was published in 2025 and accounts for a number of factors that have resulted in a reduction in trips to/from college campuses including the prevalence

of hybrid and on-line classes. The City and SANDAG rates, published in 2003 and 2002, respectively, are both over 20 years old and can be considered outdated in a number of ways.

It should be noted that all of the trip rates listed above account for all trips to and from the campus including trips made by students, teachers, staff, visitors, deliveries, etc.

3.2 Trip Generation Calculations

Table 6–1 summarizes the Project's estimated trip generation. As shown in *Table 6–1*, the Project is estimated to generate an additional 2,433 Average Daily Trips (ADT) with 233 AM peak hour trips (189 inbound / 44 outbound) and 233 PM peak hour trips (130 inbound / 103 outbound).

3.3 Trip Distribution & Assignment

The Project trip distribution was developed based on the locations of the existing and proposed access points, traffic patterns observed from the existing traffic counts, and the proximity of the Project site to surrounding freeways, and residential and commercial areas.

TABLE 3–1
PROJECT TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate [a]	ADT	Rate	In:Out Split	Volume			Rate	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Residential Component													
Miramar College	2,116 Students [b]	1.15/ Student	2,433	0.11	81:19	189	44	233	0.11	56:44	130	103	233

Footnotes:

a. Trip Rate for 'Junior/Community College' (Land use code 540) from the ITE Trip Generation Manual, 12th Edition.

b. Increase in students from 2025 to 2045 is based on 1.5%/year growth for 20 years.

4.0 VMT ANALYSIS METHODOLOGY

The analysis contained herein has been prepared to evaluate the vehicular effects of the Project using the VMT metric, as currently required under CEQA.

CEQA Guidelines *Appendix G, Transportation, significance criteria 2*, refers to CEQA Guidelines Section 15064.3, subdivision (b), which provides the criteria for analyzing transportation impacts. CEQA Guidelines Section 15064.3(b) provides, in relevant part, that the lead agency has discretion to choose the most appropriate methodology to evaluate a project's VMT impact, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's VMT and may revise those estimates to reflect professional judgment based on substantial evidence.

Additionally, CEQA Guidelines Section 15064.3, subdivision (b) notes that if existing models or methods are not available to estimate the VMT for the project being considered, a lead agency may analyze the project's VMT qualitatively. Such a qualitative analysis would evaluate VMT based on factors such as the availability of transit, proximity to other destinations, etc.

The San Diego Community College District is the CEQA lead agency for the Project and therefore has the discretion to choose the most appropriate methodology to evaluate VMT. The analysis methodology utilized in this report was developed based on a review of the following documents:

- ***Technical Advisory on Evaluating Transportation Impacts in CEQA*** prepared by the State Office of Planning and Research (OPR) *(December 2018)*
- City of San Diego's ***Transportation Study Manual*** (TSM; *dated September 19, 2022*)
- California State University (CSU) ***Transportation Impact Study*** **(TIS)** ***Manual*** *(dated March 11, 2019)*

Neither the OPR or City of San Diego guidelines include detailed procedures for specifically analyzing VMT from colleges or universities, which are considered unique and complex land-use types from a VMT perspective, and instead group community college uses with other types of public facility uses that have different travel patterns and characteristics Alternatively, CSU's *TIS Manual* provides comprehensive and relevant guidance on the preparation of transportation impact assessments for projects on college campuses, consistent with both the CEQA Guidelines and OPR's *Technical Advisory*. While these guidelines were developed for projects on CSU campuses, they are considered especially applicable to the proposed Project due to the similar land use characteristics, commuter patterns, and travel behavior associated with large public higher-education campuses. Therefore, the Project's VMT analysis was based on CSU's *TIS Manual,* included in ***Appendix A***.

4.1.1 *Projects Screened from VMT Assessment*

Based on the CSU *TIS Manual*, the following project types generally are not required to complete a full VMT assessment and impacts under CEQA are presumed to be less than significant; that is, traffic

impacts associated with projects falling within one of the following categories are presumed to constitute a less than significant impact related to VMT:

- Local serving retail that is less than 50,000 [square feet] sq. ft., or retail that is located wholly within the core of a CSU campus;
- Childcare centers that serve students, faculty, and staff families;
- Student services facilities;
- Parking facilities that serve the campus demand and do not create "too much parking";
- Healthcare centers serving students, faculty, and staff;
- Recreation/fitness/wellness centers that serve students, faculty, and staff; and
- Projects generating less than 110 vehicle trips per day, as noted in the OPR Technical Advisory.

The CSU *TIS Manual* further describes that, in addition to the project types identified above, screening from a project-level assessment may be appropriate for other types of projects on the basis that certain characteristics (e.g. location) affect VMT such that it can be assumed those project types would not result in significant VMT impacts. Specifically, the following project types and screening attributes have the potential to decrease the number of trips and/or the trip length around their development, further decreasing VMT:

- **Development in Transit Priority Areas (TPA)**. TPAs are defined as areas within a one-half mile of either an existing major transit stop (defined as a rail transit stop, ferry terminal served by either bus or rail transit, or the intersection of two or more major bus routes with 15-minute or better headways during the peak commute periods) or a stop along an existing high quality transit corridor (defined as a fixed route bus service with headways of 15-minutes or better). TPAs should be identified by the transportation consultant for applicability in the area.
- **Development in a low-VMT generating area of the city, sub-region, or region**. Low-VMT generating areas of the city, sub-region, or region can be identified by the transportation consultant by reviewing the VMT per person for the traffic analysis zone (TAZ) for the referenced region. If the proposed land use is consistent with what is currently in the study area and the TAZ is identified as generating lower than the regional average VMT (compared to the city, sub-region, or regional VMT per person average), then the project can be screened from project level assessment.
- **On-campus housing serving students, faculty, and staff**.

Additionally, although these types of projects would be screened from project level VMT assessment, they would still need to complete a *cumulative* level assessment to determine consistency with the Regional Transportation Plan (RTP). If a project meets one of the above project screening types/attributes and is consistent with the RTP assumptions, it can be presumed to have a less than significant project-level and cumulative impact related to VMT. If a project is not consistent with the

RTP assumptions, then it would still be screened out from project-level assessment but would require assessment of the effect upon cumulative VMT.

5.0 VMT ASSESSMENT RESULTS & CONCLUSIONS

5.1 Project Level Screening Assessment

As noted in the previous section, screening from a project-level VMT assessment may be applicable to certain projects on the basis that certain characteristics such as location affect VMT such that it can be assumed that those projects would not result in significant VMT impacts. To that end, the Project is screened from a project-level VMT assessment based on the campus' location within a **Transit Priority Area** (TPA), as further described below. Consistent with CEQA Guidelines Section 15064.3 and the CSU *TIS Manual*, no quantitative project-level VMT modeling is required.

5.1.1 *Development in Transit Priority Areas*

The CSU *TIS Manual* defines Transit Priority Areas as those areas located within one-half mile of either an existing major transit stop (defined as a rail transit stop, ferry terminal served by either bus or rail transit, or the intersection of two or more major bus routes with 15-minute or better headways during the peak commute periods) **OR** a stop along an existing high quality transit corridor (defined as a fixed route bus service with headways of 15-minutes or better).

The Miramar College campus is considered to be located within a TPA because every area of the Miramar College campus is within a ½ mile of the Miramar College Transit Station with bus service provided by the Metropolitan Transit System (MTS). The Miramar College Transit Station is located on campus, adjacent to the Westview Parkway / Hillery Drive driveway. The bus routes serving the immediate Project area include MTS Routes 20, 31, 110, 235, 237, 921, and 964. A description of the routes is provided below. ***Appendix B*** includes the timetable of the bus routes.

Route 20 runs between Downtown San Diego and the Rancho Bernardo Transit Station. The route runs along Interstate-15, Hillery Drive, and Westview Parkway. There is a total of thirty-nine (39) stops along this route. Weekday service begins at 5:53 AM with 30-minute headways and ends at 8:54 PM. Saturday service begins at 7:09 AM with 30-minute headways and ends at 7:39 PM. Sunday service begins at 7:39 AM with 60-minute headways and ends at 7:39 PM.

Route 31 runs between the UTC Transit Center and Miramar College Transit Station. The route runs along Black Mountain Road, Miramar Road, La Jolla Village Drive and Genesee Avenue. There is a total of twenty-eight (28) stops along this route. Weekday service begins at 6:02 AM with 30-minute headways and ends at 6:33 PM. This route does not operate on the weekends.

Route 110 runs between Mira Mesa and Downtown San Diego. The route runs along Mira Mesa Boulevard, Black Mountain Road, Interstate-15, and Broadway. There is a total of nineteen (19) stops along this route. Weekday morning service begins at 6:02 AM with 20-minute headways and ends at 7:04 AM. Weekday afternoon service begins at 4:01 PM with 30-minute headways and ends at 5:21 PM. This route does not operate on the weekends.

Route 235 runs between the Escondido Transit Center and Downtown San Diego. The route runs along Tulip Street, Quince Street, Washington Avenue, Interstate-15, and Broadway. There is a total

of ten (10) stops along this route. Weekday service begins at 5 AM with 15-minute headways and ends at 10:35 PM. Weekend service begins at 5:01 AM with 30-minute headways and ends at 10:05 PM.

Route 237 runs between Mira Mesa and UC San Diego. The route runs along Hillery Drive, Mira Mesa Boulevard, Interstate-805, La Jolla Village Drive, and Gilman Drive. There is a total of twelve (12) stops along this route. Weekday service begins at 5:52 AM with 15-minute headways and ends at 7:17 PM. This route does not operate on the weekends.

Route 921 runs between UTC Transit Center and the Miramar College Transit Station. The route runs along Black Mountain Road, Mira Mesa Boulevard, Pacific Heights Boulevard, Barnes Canyon Road, La Jolla Village Drive, and Genesee Avenue. There is a total of thirty-one (31) stops along this route. Weekday service begins at 6:17 AM with 30-minute headways and ends at 7:07 PM. Weekend service begins at 7:19 AM with 60-minute headways and ends at 7:22 PM.

Route 964 runs between Alliant International University and Camino Ruiz & Capricorn Way. The route runs along Avenue of Nations, Willow Creek Road, Scripps Ranch Boulevard, Mira Mesa Boulevard, Hillery Drive, Black Mountain Road, Gold Coast Drive, and Camino Ruiz. There is a total of twenty-nine (29) stops along this route. Weekday service begins at 6:04 AM with 30-minute headways and ends at 6:53 PM. This route does not operate on the weekends

As described above, the proposed Project is within a TPA as that term is defined by the *CSU TIS Manual*. Therefore, the proposed Project is presumed to result in a less than significant impact and, as a result, the Project is appropriately screened from a project level assessment.

5.2 Cumulative Level Screening Assessment

The *CSU TIS Manual* notes that although a proposed project may be screened from project level VMT assessment based on the project types/locations discussed above, the project would nevertheless need to be assessed for its consistency with the applicable RTP. If the proposed project is not consistent with the RTP assumptions, then it would be necessary to assess the project's effect upon the regional or city VMT (i.e., it would require a cumulative assessment). To assess the project's consistency with the RTP, it is necessary to review the land use information and assumptions contained in the local or regional travel demand forecasting model.

The currently approved RTP for the San Diego region is the San Diego Association of Governments (SANDAG) *2025 Regional Plan*, which was adopted in December of 2025. The RTP utilizes the SANDAG Series 15 ABM 3 Regional Plan travel demand forecasting model. Within this model, the Project is located within TAZ 2456.

The RTP travel demand forecasting model assumes the continued use of the Miramar College campus with community college land uses through 2050. Therefore, the Project is considered consistent with the RTP land-use type assumptions for the area.

Since the proposed Project is consistent with the assumptions utilized in the preparation of the current SANDAG RTP, it is not necessary to conduct a cumulative-level VMT assessment of the proposed Project.

5.3 VMT Analysis Conclusions

Based on its location within a TPA, consistency with the adopted regional land use assumptions of the SANDAG Regional Plan, and absence of evidence demonstrating a substantial increase in VMT beyond baseline conditions, the Project would result in less than significant project-level and cumulative impacts related to VMT under CEQA. Consistent with CEQA Guidelines Section 15064.3, no further analysis of VMT-related impacts is required.

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TECHNICAL APPENDICES TO THE VMT

MIRAMAR COLLEGE MASTER PLAN

City of San Diego, California
June 24, 2026

LLG Ref. 3-25-4051

APPENDICES

APPENDIX

A. California State University's *Transportation Impact Study Manual, March 11, 2019.*

B. MTS Bus Route Timetables and Route Information

APPENDIX A

CALIFORNIA STATE UNIVERSITY'S TRANSPORTATION IMPACT STUDY MANUAL, MARCH 11, 2019.

California State University

Transportation Impact Study Manual

March 11, 2019

FEHR PEERS

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1. Background Information

1.1 Manual Purpose

In November 2012, the California State University (CSU) issued a Transportation Impact Study Manual (2012 CSU Manual) to assist the campuses within the CSU system in addressing transportation-related impacts under the California Environmental Quality Act (CEQA). At that time, level of service (LOS), which is based on delay to single occupant vehicles, was the metric utilized to evaluate CEQA impacts to the transportation system. Following issuance of the 2012 CSU Manual, the California legislature approved Senate Bill (SB) 743, which directed the California Office of Planning and Research (OPR) to update the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, sections 15000-15387) and identify an alternative metric for determining significant impacts.

The OPR process, described in greater detail below, identified use of Vehicle Miles of Travel (VMT) as the new metric in assessing impacts associated with vehicle travel. VMT is calculated, generally, by multiplying the number of trips generated by a project by the average distance those trips traveled. Furthermore, VMT can be normalized on a per person basis to evaluate the efficiency of that trip (e.g. the lower the VMT per person, the more efficient travel is).

In December of 2018, the Natural Resources Agency finalized their rule making process and released an update to the CEQA Guidelines to officially change the transportation analysis metric from LOS to VMT. It should be noted that the CEQA Guidelines do recognize the time required for lead agencies to change their analysis requirements and develop implementation procedures to complete the assessment; as such, lead agencies have until July of 2020 to complete the updates to their impact analysis guidelines to complete the transition from LOS to VMT.

CEQA *refers to the California Environmental Quality Act. This statute requires analysis and identification of potentially significant environmental impacts associated with state or local action, including approval of new development or infrastructure projects. The process of identifying these impacts is typically referred to as the environmental review process.*

LOS *refers to "level of service," a metric that assigns a letter grade to road network performance. The typical application of LOS is to measure the average amount of delay experienced by vehicle drivers at an intersection during the most congested time of day and to assign a report card range from LOS A (fewer than 10 seconds of delay) to LOS F (more than 80 seconds of delay). Under prior CEQA criteria, a certain increase in LOS results in a significant impact, which must be mitigated.*

VMT *refers to "vehicle miles traveled," a metric that accounts for the number of vehicle trips generated by a project and the length or distance of those trips. For transportation impact analysis purposes, VMT is generally expressed as*

Given the recent revisions to the CEQA Guidelines, this manual replaces the 2012 CSU Manual to provide guidance in the preparation of transportation impact assessments for projects on CSU campuses, including all lands owned by CSU, consistent with the CEQA Guidelines update. The manual can be used for projects ranging from campus master plan updates to individual campus projects, and for public-private development.

The CSU Transportation Impact Study Manual is subject to revision due to future changes in policies, guidelines or statutes.

1.2 SB 743 Background

In 2013, Governor Jerry Brown signed SB 743 into law, thus significantly changing the CEQA transportation impact analysis procedures. SB 743 required OPR to develop a new transportation analysis alternative to LOS that "promotes the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."[1] *The changes in impact analysis methodology include the elimination of auto delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant vehicle-related impacts.*

As proposed by OPR and approved by the Natural Resources Agency, auto delay has been eliminated as an environmental impact under CEQA. Additionally, the process identified that VMT is generally the most appropriate measure of vehicle-related transportation impacts under CEQA. [2]

In December 2018, OPR released the current version of the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) to provide advice and recommendations to CEQA lead agencies on how to implement the SB 743 changes. SB 743 requires analysis of a project's anticipated generation of VMT rather than its location-specific roadway operational impacts (i.e., LOS impacts). The Technical Advisory also recommends a variety of travel demand management mitigation strategies to mitigate a project's significant VMT impacts.

Given the departure from LOS to VMT, this manual provides instructions for analyzing transportation impacts relative to VMT, applicable significance thresholds, and recommended mitigation measures.

VMT, as defined by OPR, is normalized by dividing it by the population, employment, number of households, service population (population plus employment), and/or some other metric that effectively utilizes VMT as a measure of travel efficiency (e.g. the lower the VMT per person, the more efficient their travel patterns

[1] Public Resources Code Section 21099(b)(1)
[2] The revised Guidelines were adopted by the Natural Resources Agency in December 2018, subsequently approved by the Office of Administrative Law, and effective as of January 3, 2019.

are). As such, the shift to VMT is essentially a shift toward measuring transportation efficiency for each project.

1.3 When is a VMT Study Needed

Numerous projects are considered to be VMT reducing or make travel more efficient. One example of this would be local serving retail that is less than 50,000 sq. ft. In this example, the retail would serve local trips and likely intercept existing trips on the system that need to travel a greater distance for those local services (thus reducing average trip length and reducing VMT). Similar local-serving retail projects are not required to complete a VMT assessment.

For CSU projects, examples of projects that would be screened from VMT assessment due to their VMT reducing nature (i.e., no further analysis required) are noted below:

- Local serving retail that is less than 50,000 sq. ft., or retail that is located wholly within the core of a CSU campus;
- Childcare centers that serve students, faculty, and staff families;
- Student services facilities;
- Parking facilities that serve the campus demand and do not create "too much parking[3]";
- Healthcare centers serving students, faculty, and staff; and
- Recreation/fitness/wellness centers that serve students, faculty, and staff.
- Projects generating less than 110 vehicle trips per day, as noted in the OPR Technical Advisory[4].

For all other project types, a VMT assessment would be required, as outlined in this manual. At the outset of the project, a memo from the transportation consultant shall be provided at the beginning of the CEQA process which identifies the manner in which the Transportation Study Impact Manual will be implemented for the project.

[3] The concept reflects the notion that, if you over park a site, then it is easier/more convenient to drive and VMT per person would increase. Therefore, if the parking per FTE is not increased, the ability to drive and park remains constant, or possibly reduced, and VMT is not induced.

[4] CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact. (OPR Technical Advisory, 2018)

1.4 Chancellor's Office Coordination

Campuses embarking on any transportation impact assessment should coordinate with the Chancellor's Office to solicit input on the scope of work, assessment approach, and to verify that the latest CSU and CEQA Guidelines are being utilized.

One potential area of coordination involves whether to continue conducting LOS analysis. Although LOS is no longer required for CEQA evaluation, many cities, counties, or other agencies (including Caltrans) may still request LOS assessment as part of a campus project. In those instances, the campus shall contact the Chancellor's Office to assist in the strategy of coordinating with those agencies and their requests.

2. Report and Analysis Requirements

This chapter describes the required analytical components that shall be included in the transportation impact study (TIS). In addition to identifying the organization and information required for the report, this chapter also summarizes the analysis methodology and thresholds that shall be utilized to determine if an impact is significant.

2.1 CEQA Checklist

As noted in Chapter 1, the CEQA Guidelines have been updated related to potential transportation impacts.

CEQA Guidelines Appendix G includes a series of questions to be answered to determine if a project has the potential to result in a significant impact. The questions related to transportation impacts are listed below and are based on the CEQA Guidelines as updated in December 2018 (Appendix G, XVII. Transportation):

Would the project:

a) *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

b) *Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?*

c) *Substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

d) *Result in inadequate emergency access?*

CEQA Guidelines Section 15064.3 provides in full:

(a) Purpose.

This section describes specific considerations for evaluating a project's transportation impacts. Generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects. Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects. Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis. If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate.

(4) Methodology. A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure. A lead agency may use models to estimate a project's vehicle miles traveled, and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental document prepared for the project. The standard of adequacy in Section 15151 shall apply to the analysis described in this section.

(c) Applicability. The provisions of this section shall apply prospectively as described in section 15007. A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide.

Note: Authority cited: Sections 21083 and 21099, Public Resources Code. Reference: Sections 21099 and 21100, Public Resources Code; Cleveland National Forest Foundation v. San Diego Association of Governments (2017) 17 Cal.App.5th 413; Ukiah Citizens for Safety First v. City of Ukiah (2016) 248 Cal.App.4th 256; California Clean Energy Committee v. City of Woodland (2014) 225 Cal. App. 4th 173.

The remainder of this chapter provides guidance on addressing each of the noted CEQA checklist items consistent with Section 15064.3 of the CEQA Guidelines.

2.2 Report Requirements

This section of the Manual outlines the requirements for completing a TIS for projects proposed within the CSU system. In general, the study should include the following organization:

- Chapter 1 – Project Description and Project Setting
- Chapter 2 – Significance Criteria, Analysis Methodologies, and Results
- Chapter 3 – Impact Findings and Mitigation Measures
- Chapter 4 – Site Access and On-Site Circulation Assessment

2.2.1 Project Description and Project Setting



The Project Description and Project Setting provide the context for determining the study area for the impact analysis. The TIS study area refers to the geographical boundary within which the project's impacts on the transportation systems will be assessed. The study area should be viewed as the "area of influence" of a project. The extent of a TIS study area depends on the location (setting) and size/type of the project (description), and the technical questions anticipated to be asked by decision makers and the public. Defining the study area needs to be done through a process that results in substantial evidence (facts, analysis, etc.) to support the study area delineation. The boundary should extend as far as needed to accurately evaluate the significant impacts of the project and ensure that trip length information is not truncated at geographic boundaries (e.g. the entire trip length shall be accounted for).

Consideration of all travel modes and facilities (i.e., transit, pedestrian, bicycle, vehicle, rail, etc.) should take place when selecting the study area boundary. Guidance from CSU shall be obtained on the boundary delineation.

- The study area shall extend a sufficient distance from the project site to identify all potentially significant impacts, as supported by substantial evidence.
- Additional facilities may be studied based on circumstances unique to the site. TIS preparers shall consult with CSU to determine whether to consult with the host city or county early regarding any additional study locations based on local or site-specific issues.

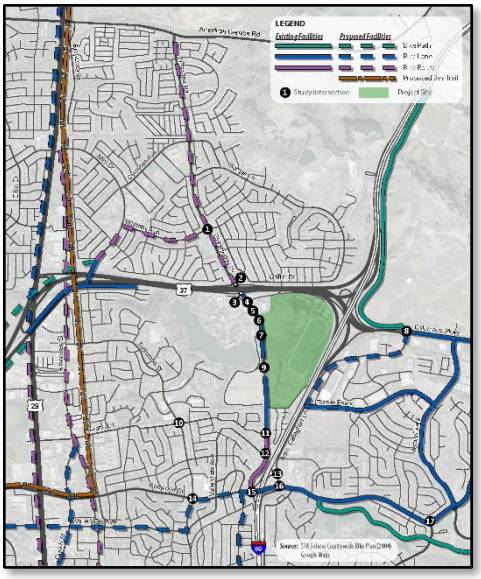
2.2.1.1 Roadway Network Description



The TIS shall provide a map that shows the Project site and identifies transportation facilities in the study area. The TIS shall provide a brief description of the study area roadways near the site. At a minimum, the TIS should state the number of travel lanes, direction of travel, the extents of each roadway, and the relation to the Project site. The TIS can also describe typical street cross-sections and other aspects of the streets such as on-street parking, bicycle and pedestrian facilities, median treatment, speed limit, etc. For state facilities, the latest available average daily traffic (ADT) counts near the Project site should also be reported[5].

2.2.1.2 Bicycle and Pedestrian Facility Description

The description and analysis of bicycle and pedestrian facilities will vary for each campus depending on the availability and usage. It is expected that urban locations will have more pedestrian and bicycle travel facilities and will require more detailed analysis than non-urban locations. At a minimum, the TIS shall provide the following information:



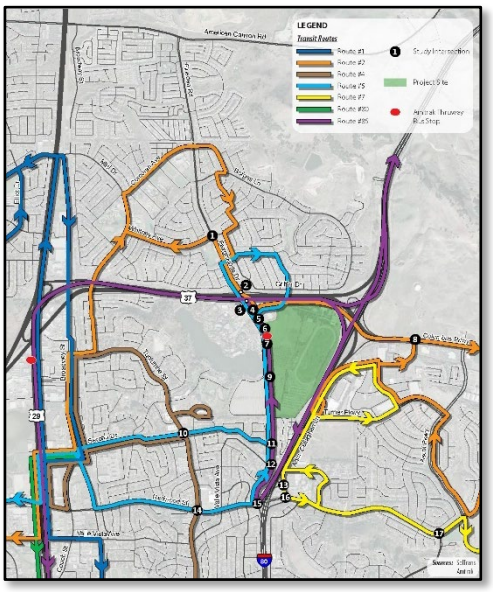
- A qualitative description of existing bicycle and pedestrian facilities in the Project vicinity. This would consist of identifying the location and type of bicycle facilities, presence of sidewalks, and the level of usage.
- A map showing existing and planned bicycle facilities in the study area.
- A description of different bicycle facility types. The local jurisdiction's bicycle plan should be consulted for a description of the facility types.
- A more detailed discussion of existing bicycle and pedestrian facilities and activities in the Project vicinity, including identification of nearby pedestrian and bicycle corridors. Major deficiencies in the existing system, such as street segments with missing sidewalks, obstacles, or non-Americans with Disabilities Act (ADA)-compliant facilities, should also be identified.

[5] Caltrans traffic counts can be found at traffic-counts.dot.ca.gov/

- A discussion of bicycle and pedestrian access between the Project site, nearby transit stops, and land uses that generate a high number of pedestrians or bicyclists (i.e., parking facilities, other campus buildings).
- A qualitative discussion based on observations of bicycle and pedestrian activity in the study area and at study area intersections.
- A description of bicycle parking in the Project vicinity, which may include location, type and usage of bicycle parking (racks, lockers, etc.)
- Graphics showing pedestrian and bicycle volumes in the study area and/or at study area intersections, if available.

2.2.1.3 Transit Facilities Description and Analysis

The description and analysis of transit facilities will vary for each site depending on the transit service and ridership in the Project area. At a minimum, the TIS shall provide the following:



- A qualitative description of transit service in the Project area, including campus shuttle service, local bus service, and regional bus, trolley, or rail service (such as Amtrak, or Bay Area Rapid Transit (BART) in the Bay Area, or the San Diego Trolley).
- A map showing transit routes within two miles of the Project site.
- Information on route operations, including hours of operations, time between stops of transit vehicles (headways), vehicle capacities, and load factors (i.e., a capacity analysis based on passenger counts).
- Information on bus stops near the Project site, such as bus stop locations.

2.2.2 Significance Criteria, Methodologies, and Results

The significance criteria refer to the criteria utilized to determine whether the transportation-related impacts of the proposed project would be significant within the meaning of CEQA. The significance criteria set forth below have been developed consistent with the CEQA Appendix G checklist questions, noted above and shall be utilized to evaluate potential project impacts. Table 1, Significance Criteria, lists the criteria to be applied in assessing transportation-related impacts; that is, the project would result in significant impacts if it would trigger any of the listed criteria.

Table 1: Significance Criteria

Impact Categories	CSU Significance Criteria
Plan Conflict	The project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities.
VMT Impacts[6]	The project would result in a VMT-related impact as described below
Hazard Impact	The project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
Emergency Access Impact	The project would result in inadequate emergency access.

CEQA Checklist Questions:

a) Will the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

b) Will the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

c) Will the project substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

d) Will the project result in inadequate emergency access?

2.2.2.1 Evaluation Approach and Methodology

2.2.2.1.1 Plan Conflicts

The TIS should identify plans, ordinances, or policies addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. The consistency of a proposed project with the policies and standards shall be assessed to inform the impact conclusions using the significance criteria identified in **Table 1**. The various agencies and policies that will apply to most CSU projects are described below.

[6] Refer to Table 2: VMT Thresholds and Measurements by Project Type

CSU Campus Policies and Programs

The TIS should list the relevant circulation plans and other relevant transportation information identified in the current Campus Master Plan. A description of the Campus Travel Demand Management Plan (if applicable), current programs, and effectiveness (i.e. commute club membership, average carpool occupancy, changes in bicycle use, etc.) shall be included in this section.

Local Agency Policies and Standards

For information purposes, the TIS should list the transportation related programs, plans, and policies published in the adopted General Plan of the host city or county. The most relevant policies are those regarding planned improvements, including new roadways and new pedestrian and bicycle facilities, and policies and programs to enhance and encourage non-auto mode usage. Note that as a state agency, CSU is not required to comply with local plans, policies or regulations).

Congestion Management Program

The TIS must evaluate the Project's consistency with the relevant Congestion Management Program (CMP) requirements, where applicable, related to transit, bicycles, pedestrians, and other non-automotive uses. If the local CMP only requires LOS assessment for project evaluation, then that assessment shall not be included in the TIS as it is no longer required by CEQA upon implementation of SB 743. However, all other non-automotive analyses required by the CMP shall be assessed in the TIS to determine whether the project would conflict with the CMP.

2.2.2.1.2 VMT Impacts

This section describes the methodology and significance criteria for evaluating VMT impacts for CSU projects.

Screening Criteria

Please note that this section describes potential ways to screen projects from VMT assessment. However, projects that may be screened from VMT assessment may still need to address other assessments to comply with CEQA requirements.

Projects Screened From VMT Assessment

As noted in Chapter 1, the following CSU project types would generally not be required to complete a full VMT assessment; that is, identifying and describing the project as falling within one of these categories would constitute a less than significant impact related to VMT for CEQA purposes:

- Local serving retail that is less than 50,000 sq. ft., or retail that is located wholly within the core of a CSU campus;
- Childcare centers that serve students, faculty, and staff families;
- Student services facilities;
- Parking facilities that serve the campus demand and do not create "too much parking[7]";
- Healthcare centers serving students, faculty, and staff;
- Recreation/fitness/wellness centers that serve students, faculty, and staff; and
- Projects generating less than 110 vehicle trips per day, as noted in the OPR Technical Advisory[8].

Please note that, for those project listed above, the transportation consultant must still use engineering judgement to in completing the screening; that is, if these project types have the potential to increase VMT per person for some unique reason, then the project should undertake a full VMT assessment.

Projects Screened From Project Level VMT Assessment

In addition to the project types identified above, screening from project-level assessment may be applicable to certain other types of projects that do not meet the above project type on the basis that certain characteristics (e.g. location) are such that it can be assumed such project types would not result in significant VMT impacts. These project types and screening attributes are noted below as they have the *potential* to decrease the number of trips and/or the trip length around their development, further decreasing VMT. Importantly, however, this screening exemption is not absolute and if the transportation consultant reaches a conclusion that the project is appropriately screened from project-level analysis, it is essential that the study include substantial evidence supporting the conclusion. Additionally, although these projects would be screened from project level VMT assessment, they would still need to complete a *cumulative* level assessment to determine consistency with the Regional Transportation Plan (RTP) produced by the local Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA).

- Development in Transit Priority Areas (TPA[9]);

[7] The concept reflects the notion that, if you over park a site, then it is easier/more convenient to drive and VMT per person would increase. Therefore, if the parking per FTE is not increased, the ability to drive and park remains constant, or possibly reduced, and VMT is not induced.

[8] Note – this screening criteria is described in OPR's technical advisory. If using this threshold, the transportation consultant should be aware that this is a trip-based benchmark; not a VMT-based benchmark. The user should review the trip length tied to the project to ensure that those would not be considered abnormally lengthy which would constitute potential concern related to CEQA significance.

[9] TPAs are defined as development located within a one-half mile of either an existing major transit stop (defined as a rail transit stop, ferry terminal served by either bus or rail transit, or the intersection of two or more major bus routes with 15-minute or better headways during the peak commute periods) or a stop along an existing high quality transit corridor (defined as a fixed route bus service with headways of 15-minutes or better).

- Development in a low-VMT generating area of the city, sub-region, or region; or
- On-campus housing serving students, faculty, and staff.

TPAs should be identified by the transportation consultant for applicability in the area. Low-VMT generating areas of the city, sub-region, or region can be identified by the transportation consultant by reviewing the VMT per person for the traffic analysis zone (TAZ[10]) for the referenced region. If the proposed land use is consistent with what is currently in the study area and the TAZ is identified as generating lower than existing VMT (compared to the city, sub-region, or regional VMT per person average), then the project can be screened from project level assessment.

As previously noted, although the project types described above can be screened from *project* level assessment, the proposed project needs to be assessed for its consistency with the RTP assumptions. If the project is not consistent with the RTP assumptions, then it would be screened out from project-level assessment but would require assessment of the effect upon regional or city VMT (i.e., it would require a cumulative assessment).

Some agencies (such as SACOG in Sacramento) have a checklist to determine RTP consistency and the campus should review local requirements for determining RTP consistency. If a checklist is not available, then consistency must be verified. To verify consistency, the land use information and assumptions in the local or regional travel demand forecasting model[11] should be reviewed.

Projects Requiring a Full VMT Assessment

For projects that do not meet any of the screening criteria described above, a transportation impact study including a full VMT assessment will be required. To complete this assessment, the traffic consultant will be required to determine if the project-generated VMT per service population is less than 15% of the existing regional, sub-regional, or citywide VMT per service population to determine whether the project would result in any project-related significant VMT impacts. The consultant must also evaluate the project's *effect* on VMT to determine if the project would increase or decrease the forecasted regional total VMT, i.e., would result in significant cumulative impacts.

For those projects not screened from further analysis, **Table 2** summarizes the VMT significance thresholds to be applied in assessing impacts associated with CSU projects; separate thresholds are identified for

[10] TAZ refers to a specific geographic location related to land use inputs into the regional or local travel demand forecasting model.

[11] The appendix contains a list of RTP assumptions related to campus use as of August 2018 to assist in verifying RTP consistency. Although this information has been summarized to assist staff with a consistency determination, the user should verify the land use inputs independently for accuracy.

application to project-level and cumulative impacts. These thresholds are consistent with the thresholds set forth in the OPR Technical Advisory, which recommends a significance threshold of 15% below existing VMT for project-level impacts associated with specific projects when measuring VMT on a per person or per capita basis (i.e., the project's travel efficiency should be 15% better than existing travel efficiency).

Table 2: VMT Significance Thresholds

Impact Categories	CSU Significance Thresholds
Project Level Impacts	➢ Residential Projects: VMT / Resident exceeds threshold of 15% below existing regional, sub-regional, or citywide VMT / Resident ➢ Office/Industrial: VMT / Employee exceeds threshold of 15% below existing regional, sub-regional, or citywide VMT / Employee ➢ Mixed-Use: VMT / Service Population[12] exceeds threshold of 15% below existing regional, sub-regional, or citywide VMT / Service Population ➢ Commuter Student Growth: VMT / Commuter Student exceeds threshold of 15% below existing regional, sub-regional, or citywide VMT / Commuter Student ➢ University Employment: VMT / Employee exceeds threshold of 15% below existing regional, sub-regional, or citywide VMT / Employee
Cumulative Impacts	➢ Residential Projects: VMT / Resident under the "with project" condition exceeds the Citywide, regional or sub-regional VMT / Resident identified under the RTP/SCS condition ➢ Office/Industrial: VMT / Employee under the "with project" condition exceeds the Citywide, regional, or sub-regional VMT / Employee identified under the RTP/SCS condition ➢ Mixed-Use: VMT / Service Population[2] under the "with project" condition exceeds the Citywide, regional, or sub-regional VMT / Service Population identified under the RTP/SCS condition ➢ Commuter Student Growth: VMT / Commuter Student under the "with project" condition exceeds the Citywide, regional or sub-regional VMT / Commuter Student identified under the RTP/SCS condition ➢ University Employment: VMT / Employee under the "with project" condition exceeds the Citywide, regional, or sub-regional VMT / Employee identified under the RTP/SCS condition

[12] Service population is typically defined as population plus employment. For campuses, service population is defined as population plus employment plus students. The transportation consultant shall not double count resident students twice in this evaluation (i.e., shall not count students that also live on campus).

VMT Methodology

As previously noted, VMT is defined as the number of trips generated by a project multiplied by the length of each trip. There are multiple methodologies that can be used to calculate VMT for a project, so special attention must be paid to how the project VMT is estimated.

VMT assessment under SB 743 is an efficiency metric, essentially evaluating the efficiency of the land use and transportation system by comparing the VMT per person that would result under the proposed project to the existing region or city VMT per capita. As such, the VMT methodology must be able to calculate the VMT for the project utilizing the exact same methodology used to estimate the VMT at the regional, sub-regional, or citywide scale so that an "apples-to-apples" comparison can be made.

The "best" tool presently available to estimate VMT at all CSU campus locations is the local or regional travel demand forecasting model. The travel demand models estimate trip generation, distribution, and assignment by land use type. Additionally, given the local or regional context of the project, the travel demand model can be utilized to develop the regional or citywide comparative efficiency metrics related to VMT.

As noted later in this manual, consistent with the OPR Technical Advisory for SB 743 implementation, VMT should be normalized as an efficiency rate for evaluation, the transportation consultant isn't evaluating the total VMT generated by the project; rather they are comparing the efficiency of travel on a per person basis to local, sub-regional, or regional travel efficiency averages. Depending on the proposed use being evaluated, the normalization should focus on specific types of VMT (identified as VMT by trip purpose) and should be normalized to the appropriate capita denominator (employment for employment uses, population for residential uses, students for educational uses, etc.). For example, increased employment uses should focus on home-based-work trip purposes estimated from the model and would be normalized per employee; home-based-work trips are those trips made from home to work and back home. This "commute trip" VMT estimate would be compared to the regional, sub-regional, or citywide VMT for the same trip purpose per employee to evaluate potential impacts of the project.

Please note that some travel demand models have limitations related to the application of isolating VMT by trip purpose or have constraints related to the model's ability to fully account for existing VMT in the model study area (especially if the project is located near the near the model's geographic boundary). As such, the traffic consultant shall use professional judgment to adjust the model results (if needed) in order to provide an accurate accounting of VMT per person, as required in **Table 3, VMT Normalization Guidance**.

Table 3: VMT Normalization Guidance

Project Type	VMT Trip Purpose Type[1, 2, 3, 4, 5, 6]
University Commuter Student Growth	Home-Based Other (Attraction)
University Master Plans and Other Mixed-Use Projects where new VMT would be generated (including FTE increases or other projects that include multiple uses)	Home-Based Work (Production & Attraction) + Home-Based Other (Production & Attraction) + Non-Home-Based (Production & Attraction)
University Employment	Home-Based Work (Attraction)
Market-rate or non-university housing	Home-Based Work (Production) + Home-Based Other (Production)
Student/Faculty/Staff Housing	Home-Based Work (Production & Attraction) + Home-Based Other (Production & Attraction)
Office/Industrial or off-campus commercial/retail greater than 50,000 sq. ft. (typically implemented as a Public-Private Partnership project)	Home-Based Work (Attraction)
Events and Recreational Projects[7,8]	Home-Based Other (Attraction)
Development located in a Transit Priority Area	See categories above for the most appropriate metric

Notes

1. Home-Based Work trips are trips in which either the origin or destination of the trip is the traveler's home, and either the origin or destination of the trip is the traveler's workplace.
2. Trip Production is the home end (either the origin or destination) of a Home-Based trip, or it is the destination of a Non-Home-Based trip.
3. Home-Based Other trips are trips in which either the origin or destination of the trip is the traveler's home, and either the origin or destination of the trip is a location other than the traveler's workplace, such as a place to buy goods or services, or a place to engage in social or recreational activities.
4. Trip Attraction is the non-home end (either the origin or destination) of a Home-Based trip, or destination of a Non-Home-Based trip.
5. Service Population is comprised of the employment population plus student population plus any additional residency not captured in the noted populations (e.g. faculty or staff housing could have spouses or children living there that are not already accounted for in the employment or student population).
6. Non-Home-Based trips are trips in which neither the origin nor destination of the trip is the traveler's home.
7. Examples of these types of projects include hotels, arenas, performing arts centers, and conference centers.
8. In the context of events and recreational projects, production-based trips are those generated by the residential land uses. Attractions, on the other hand, are trips that are destinations and are usually generated by employment or educational uses. Isolating these trip types allows the analyst to isolate the specific trip types accordingly.

To be consistent with current best practices, the transportation consultant shall review the travel demand model to ensure that it meets the following three criteria to be deemed acceptable for use in the assessment:

1. The scale of the model should match that of the project to ensure that the model accounts for all regional influence areas and accounts for the total VMT generated by the project (i.e., confirm it does not artificially truncate VMT information due to a small geographic boundary).
2. The model should be calibrated and validated within the study area by the transportation consultant related to VMT estimation. The model's validation in the study area should be verified for each forecast time period (i.e., daily, AM peak hour, PM peak hour, etc.) and for each mode analyzed. The model trip length information and VMT estimates should also be compared to available data to verify accuracy. The model validation should include static and dynamic tests. Static validation tests should include those specified in Travel Forecasting Guidelines (Caltrans, 1992), and Model Validation and Reasonableness Checking Manual (FHWA, 1997). Dynamic tests verify that the model contains an appropriate level of sensitivity related to the types of transportation network or land use changes associated with the project.
3. The model's land use or socioeconomic forecasts should be tested for reasonableness by the transportation consultant. Models are used to forecast travel demand for a specific horizon year (i.e., 20 years). The land use and socioeconomic forecasts need to match the horizon year and be based on reasonable market conditions that reflect past and future development trends for the specific study area. Additionally, the model needs to include any reasonably foreseeable development projects.

Project Generated VMT Assessment (Project Impacts)

To estimate the project generated VMT, the travel demand model should be run for the base year and future year condition, isolating out the VMT generated by the project as noted in **Table 3**. Since the project generated VMT should reflect the opening year of the project for individual projects or the buildout year for master plan projects, the traffic consultant must interpolate the VMT estimates between the base year and future year model results assuming linear interpolation (typically, a model's base year is several years prior to the opening year of the project). The same interpolation and model runs shall be utilized to estimate citywide, regional, or sub-regional VMT that is to be utilized for comparative purposes.

Using the model in this fashion, the transportation consultant shall complete the following assessment:

- Existing Conditions – existing VMT per capita for the citywide, regional, or sub-regional area
- Project Conditions – VMT per capita for the proposed project to be compared to the Existing Conditions
- Cumulative No Project Conditions – RTP-consistent VMT per capita at the citywide, regional, or sub-regional level
- Cumulative Plus Project Conditions – VMT per capita at the citywide, regional, or sub-regional level

Project Effect on VMT Assessment (Cumulative Impacts)

For the cumulative assessment, the transportation consultant shall evaluate the project's *effect* on VMT. To undertake this assessment, the user must input the project into the travel demand model and determine if the project would result in an increase or decrease in the regional, sub-regional, or citywide VMT per capita.

The traffic consultant may need to complete a redistribution of land uses to ensure that the "no project" assessment and the "with project" assessment contain the same land use control totals for the city, region, or sub-region, especially if the project is large enough that it would affect land use absorption elsewhere in the city, region, or sub-region (e.g. a proposed housing project on the campus does not change the regional population estimates; it just reallocates where they live). The consultant also will need to work with the Chancellor's Office to identify the most appropriate method of land use allocation, but the following approaches are considered acceptable for completing the cumulative assessment:

- Add the proposed land use to the travel demand model (note, this will not maintain regional control totals, but should produce appropriate results for most projects); or
- Utilize an economist to identify where else in the local region development would not occur with implementation of the project to maintain regional land use control totals (this would be appropriate for campus development that includes significant housing (i.e., more than 1,000 housing units or employees that were not anticipated in the RTP); or
- The traffic consultant would review all Traffic Analysis Zones (TAZs) within a five- to ten-mile radius of the project site and reduce growth proportionately across all TAZs showing growth to maintain regional land use control totals.

Fehr & Peers completed a "test case" for VMT assessment as part of manual preparation using the CSU San Bernardino master plan as the test project to evaluate through the VMT methodology and significance criteria. The results of this test case are summarized in a presentation included as Appendix C.

2.2.2.1.3 Hazard Impacts

The transportation consultant should review the project and determine if there is a specific design component that would create a hazardous condition. Typically, this review looks at project geometrics and the consultant would provide a professional opinion related to modal conflicts and/or consistency with typical design standards.

Additionally, the transportation consultant should review the land use context where the project is expected to contribute a different mix of travel such that the volume, mix, or speed of traffic was not anticipated as part of the original transportation network design (applies to all modes). Increasing trips on a facility that

was not originally designed for that volume, mix, or speed of traffic is another important consideration that should be addressed.

2.2.2.1.4 Emergency Access Impacts

The transportation consultant shall work with the campus to contact emergency services (fire and/or police) and solicit their input related to emergency accessibility for the project site. Additionally, CSU projects are required to follow the State University Administrative Manual (SUAM) which requires the State Fire Marshal to review all projects prior to implementation. As such, the consultant should reference the university requirements related to the SUAM which would result in a less-than-significant finding related to emergency accessibility impacts.

2.3 Impact Findings and Mitigation Measures

This section of the Transportation Impact Study shall summarize the results of the impact analysis (using the methodologies and significance criteria and thresholds identified above).

For significant impacts, feasible mitigation measures shall be recommended. **Table 4, Potential Mitigation Measures**, lists those potential mitigation measures that shall be considered by the transportation consultant and campus; the measures are listed by corresponding impact category. The specific mitigation measures to be selected will depend on the specific impact identified.

Table 4: Potential Mitigation Measures

Impact Category	Potential Mitigation Measures
Plan Conflict	➢ Provide for access to, from, and through the development for pedestrians and bicyclists ➢ Designate Class I bicycle paths, Class II bicycle lanes, and other appropriate facilities on-campus ➢ Provide bus turn-outs, bus shelters, additional bus stops, and park-and-ride lots ➢ Address planned transit facilities in project design, if feasible ➢ Coordinate with local transit providers to improve service to the area

VMT Impacts	➢ Revisit project design features and or proposed land uses with an eye towards reducing project trips or reducing trip lengths ➢ Look for other measures to reduce trip lengths or the number of trips generated through Transportation Demand Management (TDM) measures (see additional guidance below) ➢ If a regional program is available to reduce VMT, a fair-share payment toward that program shall be paid if all significant impacts have not been mitigated through all other feasible mitigation measures
Hazard Impact	➢ Optimize location of access driveway(s) ➢ Improve sight distances at intersections and driveways to standard engineering practice ➢ Provide for yield or stop control ➢ Restrict certain turn movements
Emergency Access Impact	➢ As noted above, projects would be required to be reviewed by the State Fire Marshal as part of the SUAM procedures. As such, no significant emergency access impacts are anticipated and, therefore, no mitigation would be required.

VMT Mitigation – Transportation Demand Management Strategies

For those projects that result in significant VMT-related impacts, implementation of a TDM mitigation measure represents potentially feasible mitigation to assist in reducing such impacts, if not fully eliminating the impacts. In preparing a TDM mitigation measure, each campus shall consider the following VMT reduction strategies to mitigate those impacts:

- Revisit project design features and or proposed land uses with an eye towards reducing project trips or reducing trip lengths. In a master plan context, examples include: increasing on-campus housing (thereby reducing commuter trips to the campus), limiting parking on the campus to discourage vehicle trips, coordinating with regional transit agencies to expand transit service to the campus, improving bicycle/pedestrian facilities both on- and off- campus, and other measures that decrease the need and/or desirability for people to drive to/from the campus.
- After all feasible TDM strategies have been included within the recommended mitigation measure, if there are remaining (i.e., residual) significant VMT-related impacts, the transportation consultant needs to determine whether there are any fee (i.e., fair-share) programs specific to VMT reduction that have been adopted and are applicable to CSU, generally, and the campus geographic area, specifically. Currently, there are very few such programs available to reduce VMT significant impacts

through a fair-share payment program (only a handful of VMT-based nexus programs exists in the state). If a valid regional program applicable to CSU is available to reduce VMT at the time the transportation consultant is conducting the VMT analysis, and impacts have not been reduced to less than significant with implementation of other VMT-reduction strategies, then, following consultation with the Chancellor's Office and General Counsel, a fair-share payment toward that program in an amount necessary to reduce the remaining impacts to less than significant shall be considered.

- Several regional agencies are exploring a VMT mitigation banking system that, if implemented, could be utilized to off-set significant VMT-related impacts. Although such a banking system currently does not yet exist in the state, this potential mitigation measure could exist in the future, and the transportation consultant must research the then-present availability of any such programs, with a related report to the campus and Chancellor's Office.

In light of the fact VMT mitigation programs have not yet been developed in most areas of the state, the mitigation measure most available that can affect VMT on campuses is implementation of a comprehensive TDM program. In this regard, CSU has developed a comprehensive TDM manual that provides a framework for development of a TDM program tailored to the setting of each campus.

Anticipated VMT reductions associated with several TDM strategies presently can be calculated using information from the California Air Pollution Control Officers (CAPCOA) guidance or other approved VMT calculation methodology.

Full implementation of all feasible TDM measures will mitigate significant VMT impacts to the extent feasible. TDM measures, which likely will be required in many circumstances, should be considered early in the project development process, along with the costs of implementation of such measures.

TDM Measure
Parking
Student, Faculty and Staff Permits
Daily Parking Pricing
Short Term/Hourly Parking
Preferential Parking for Carpools and Vanpools
Transit
Reduced/Subsidized Transit Fares
Universal Transit Pass
Shuttle Services
Walking/Bicycling
Walking and Biking Incentives
Bicycle Parking and Showers
On-site Bicycle Maintenance
Bikesharing
Other
On Campus Amenities
On Campus Housing
Guaranteed Ride Home Program (for Employees)
Carpool and Vanpool Incentives
Marketing and Educational Campaigns
Carsharing
Pre-tax Commuter Benefits (for Employees)
Ridematching Program

2.4 Site Access and On-Site Circulation

The analysis of on-site circulation is required to identify the adequacy of the site design. The level of detail in the analysis is to match the level of detail provided in the project site plan and will also be affected by the project type – i.e., a Master Plan update will be reviewed more broadly relative to campus-wide circulation

system requirements, whereas a new building or parking structure can receive a more localized and operational review.

The site plan review and circulation assessment should include the following considerations. This portion of the review should be completed by a registered State of California Civil or Traffic Engineer.

- Existence of any current traffic hazards in the local area such as high-collision locations.
- Applicability of context-sensitive design practices compatible with adjacent neighborhoods or other areas that may be impacted by the project traffic.
- Close proximity of proposed site driveway(s) to other driveways or intersections that may create a traffic hazard.
- Adequacy of corner sight distance or stopping sight distance at project access points.
- Adequacy of on-site vehicle, bicycle, and pedestrian circulation, provision of safe pedestrian paths between residential areas and academic buildings and other campus destinations, and between the site and nearby transit facilities.
- Project site design, including project construction activities, resulting in inadequate emergency access or response times.

3. Agency Coordination and Guidance

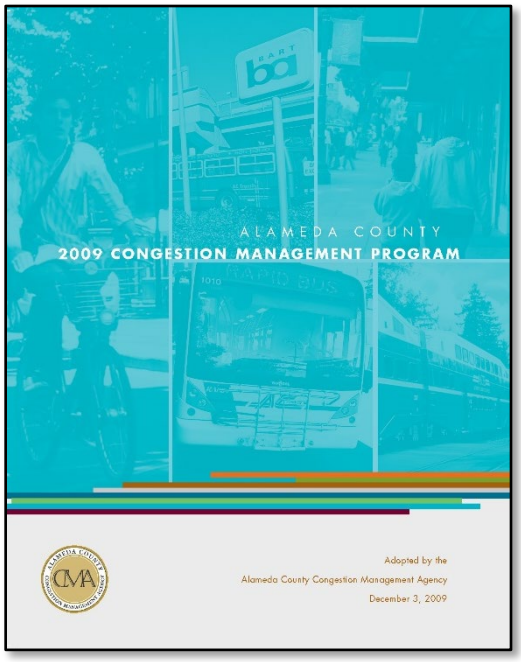
Campuses embarking on any transportation assessment should coordinate with the Chancellor's Office to solicit input on the scope of work, process, and to verify that the latest CSU and CEQA Guidelines are being utilized.

As previously noted, although LOS is no longer required for CEQA evaluation, many cities, counties, or other agencies (including Caltrans) may still request LOS assessment as part of a campus project. In those instances, the campus shall contact the Chancellor's Office to assist in the strategy of coordinating with those agencies and their requests.

The remainder of this chapter summarizes key agencies with which coordination may be required when preparing a TIS.

3.1 Congestion Management Agency

In 1990, the State of California passed Proposition 111, which requires urban counties to establish Congestion Management Agencies (CMA) to conduct certain transportation-related functions, including oversight of a portion of the state gas tax. CMAs are directed by boards consisting of representatives from the applicable county and each city within the county. The CMAs are required to maintain and periodically update a Congestion Management Program (CMP), consisting of the following elements:



- Traffic LOS standards applicable to a designated system of State highways and principal arterial streets;
- Transportation System Performance Measures to evaluate current and future multi-modal system performance for the movement of people and goods;
- A seven-year capital improvement program (CIP) containing projects to maintain or improve the performance of the multi-modal system for the movement of people and goods;
- A set of procedures to analyze the impacts of land use decisions made by local jurisdictions on regional transportation systems; and
- A travel demand element that promotes transportation alternatives to the single-occupant vehicle.

In addition to preparing, adopting and implementing a CMP, each CMA includes a countywide computerized travel demand model based on a uniform database. The CMA must also establish procedures for preparing Deficiency Plans when LOS standards are violated.

CMP requirements vary from county to county, but generally require assessment of project impacts on the primary roadway network (freeways and major arterials), using a trigger for impact assessment based on project size or number of trips generated; note that certain counties, including San Diego, have opted out of the CMP program. The CMP performance objectives are often different than those maintained by a local city or Caltrans, reflecting a county-wide perspective on congestion management and multi-modal transportation system operations. For example, a corridor-level metric such as average travel speed or vehicle density may be used as opposed to individual intersection or roadway segment LOS.

Given the direction of SB 743 to eliminate LOS from CEQA documents and utilize VMT for determining CEQA impacts, each campus will need to review the requirements identified within the CMP to determine applicability to the campus and corresponding TIS. If applicable requirements only focus on LOS assessments within the CMP, then no technical analysis will be required. However, if a CMP requires assessment of other modes or metrics, then the transportation assessment will need to address consistency with those modal requirements.

3.2 Caltrans

The California Department of Transportation (Caltrans) operates and maintains the State's highway system. Transportation impact studies prepared for CSU projects within a study area that includes Caltrans facilities should coordinate with Caltrans on the scope of the transportation assessment, including the standard practices of the local Caltrans District. Notwithstanding SB 743, Caltrans may require additional analysis beyond VMT, including, for example, queue analysis at Caltrans facility on- and off-ramps as related to potential safety impacts.

In recent years, Caltrans has begun moving toward a multi-modal, "complete streets" perspective in managing its facilities, to include not just freeways but many urban thoroughfares. Several guidance documents are available to support impact assessment on such routes, including Complete Streets Implementation Action Plan (February 2010) and Smart Mobility 2010 (February 2010).

In furtherance of the "complete streets" approach, in November 2016, Caltrans published interim guidance relative to SB 743. These guidelines supersede the previous Caltrans' guidance related to traffic impact analyses (published in 2002) that were largely focused on vehicle LOS. The guidance specifically states:

> *"Past LD-IGR practices primarily utilized Level of Service to identify various impacts to the State Highway System (SHS), and often limited its recommended mitigation to traditional road*

improvements. Although Caltrans recognized that Lead Agencies could implement other measures, such as improvements to other modes of transportation or incentive programs to encourage use of other modes, the Lead Agencies often rely on Caltrans' recommended measures. Going forward, efforts to fulfill our LD-IGR obligation should consider multimodal solutions to not only improve access to destinations for all system users (motorists, transit riders, bicyclists, pedestrians), but also encourage efficient land use that helps achieve the multitude of goals sought, including quality of life, economic prosperity, the development of multimodal networks, and GHG emissions reduction ."

3.3 Regional Transportation Planning Agencies

Regional transportation planning agencies (RTPA) are one of three regional agencies responsible for regional planning in California. The Caltrans Director designates the official regional transportation planning agency for each of California's 58 counties. For each county, the regional transportation planning agency is established through one of the following:

- created by statute,
- the metropolitan planning organization (MPO) serves as the regional transportation planning agency, or
- a local transportation commission or county transportation commission serves as the regional transportation planning agency.

Prior to the passage of SB 743, the purpose of the RTPA was to monitor LOS on regional roadways and prepare regional plans and programs to improve all modes of transportation locally and regionally. Under the new CEQA guidelines established pursuant to SB 743, RTPAs will have the responsibility of developing plans to reduce VMT. This change from vehicular LOS to regional VMT will align transportation metrics and mitigation measures with those required for air quality and covered in the Sustainable Communities Strategy (SCS). The SCS integrates land use and transportation strategies to achieve greenhouse gas (GHG) emission reduction targets. SB 375 requires each metropolitan planning organization to prepare a SCS.

In tandem with an SCS, agencies are likely to prepare a Regional Transportation Plan (RTP), which is a long-range planning document identifying future transportation improvements and the funding available within the region. The RTP/SCS collectively identifies improvements across the entire transportation system, including the roadway network and public transit systems.

Transportation impact studies prepared for CSU projects shall review the project's consistency with the RTP/SCS and document those consistency findings as outlined in prior chapters of this manual.

3.4 Air Quality Management Districts

Air Quality Management Districts (AQMDs) are comprised of locally elected officials from each jurisdiction within the district. The purpose of the districts is to regulate sources of air pollution. In September 2006, the State of California passed AB 32, the Global Warming Solutions Act of 2006, which requires the state to achieve a specified statewide GHG emissions reduction cap by 2020. Since the passage of AB 32, the California Air Resources Board and regional AQMDs have been developing guidance on the evaluation of GHG baselines and reduction strategies. Senate Bill 375 (SB 375) provides incentives in the form of CEQA streamlining to encourage community design that supports reduction in per capita GHG emissions. This effort has been further supported by the passage of SB 743.

CSU projects that require CEQA clearance may need to provide inputs, such as vehicle trips and vehicle-miles travelled, to the consultant preparing the air quality analysis of the project. Most AQMDs provide a set of guidelines to assist Lead Agencies in evaluating potential air quality impacts of projects and plans. Impact assessment for air quality assessment within a District's governing area should generally be prepared consistent with the guidelines set by the District.

3.5 Coastal Commission

The California Coastal Commission (CCC) is a state agency that partners with coastal cities and counties to regulate the use of land and water in the coastal zone under the California Coastal Act. The California Coastal Act includes provisions relating to transportation and public services in the context of new development. For example, Chapter 3, Article 6, Section 30250 (Location; Existing Developed Area), states that most new development must be located in proximity to existing developed areas in order to consolidate public services. Likewise, Section 30252 (Maintenance and Enhancement of Public Access) states that new development should maintain and improve public access to the coast, including measures such as extending transit service, mixing land uses in developed areas, providing bicycle and pedestrian circulation within the development, and providing adequate parking and/or increased transit service.

To maintain consistency with the Coastal Act, local governments prepare Local Coastal Programs (LCP) for CCC approval. The LCP guides development in the coastal zone and consists of a Land Use Plan, consistent with the local jurisdiction's general plan land uses, and an Implementation Plan, which is typically integrated with the local government's zoning code. Though the LCP plans vary by jurisdiction, a given LCP may directly address transportation considerations, such as the provision of new bicycle storage facilities at beach parking lots and standards for maximum roadway width through the coastal zone. Once the CCC adopts the LCP, the local agency that put forth the LCP is responsible for issuing coastal permits concurrent

with that planning document. The CCC only directly issues permits for land not covered under an LCP and addresses appeals of coastal permits.

CSU transportation impact studies for projects within the coastal zone shall review the goals and policies set by the applicable LCP and determine the project's consistency with those goals and policies. (Note: The term "coastal zone" is a legally defined term. Campuses should consult with the General Counsel's office to determine whether the subject project would be located within the coastal zone.)

3.6 Local Agencies

Local agencies in California typically have the ability to control land use and transportation within the City. However, CSU campuses are not subject to local land use control. As such, local agencies may approach a campus during a TIS without the understanding of their lack of control over campus land use decisions.

As such, local agencies may comment on environmental documents as they are a responsible (e.g. they are responsible for the areas around the campus). These local agencies are governed by the policies contained in their General Plan (which includes goals, policies, and maps related to transportation in its Circulation Element). Additionally, many cities have completed other transportation plans (such as Active Transportation Plans (ATPs), Bicycle Master Plans, Transit Master Plans, etc.) that guide the planning and implementation of those transportation facilities in their City.

Many cities have specific General Plan targets related to LOS. As such, local agencies may ask for intersection or roadway segment analysis to show the project's consistency with their policies. As noted above, LOS is no longer required for CEQA assessment and the CSU is not subject to these local land use control policies. Therefore, if a local agency does request LOS assessment (or any other assessment hat is not consistent with this manual), the Chancellor's office shall be consulted immediately to determine the most appropriate approach to coordinating with the local agency.

Appendix A – Glossary of Acronyms

SB – Senate Bill

AB – Assembly Bill

LOS – Level of Service for intersection or roadway operations

VMT – Vehicle Miles of Travel

TISM – CSU Traffic Impact Study Manual

CEQA – California Environmental Quality Act

OPR – California Office of Planning and Research

MP – Master Plan

RTP – Regional Transportation Plan

SCS – Sustainable Communities Strategy

TPA – Transit Priority Area

FTE – Full Time Equivalent

TDM – Transportation Demand Management

Appendix B – RTP Assumptions

Model Inputs and VMT Estimates for Campuses

Note: This information is meant simply as a reference for the CSU campuses. For project applications, campuses need to verify with the Metropolitan Planning Organizations and other entities that manage the below models that the information associated with them is correct before they use it.

Campus	Potential Travel Demand Forecasting Models to Estimate VMT	Base Year	Base Year - Employment	Base Year - Students	Future Year	Future Year - Employment	Future Year - Students	Other Dedicated VMT Estimators Available	Information on Existing Campus VMT Estimates	Link to Reports with VMT Estimates	Notes
Northern											
Cal Maritime	• Solano/Napa Activity Based Model (Solano/Napa) • The Bay Area's Metropolitan Transportation Commission's Travel Model One (TMO) Activity Based Model	• **Solano/Napa:** 2015 • **TMO:** 2010	• **Solano/Napa:** 329 • **TMO:** 645	• **Solano/Napa:** 291 • **TMO:** 573	• **Solano/Napa:** 2040 • **TMO:** 2040	• **Solano/Napa:** 414 • **TMO:** 727	• **Solano/Napa:** 364 • **TMO:** 640	N/A	• The "Increase in VMT After Implementation of the Master Plan" was calculated on page 334 of the report "California State University Maritime Academy Physical Master Plan Environmental Impact Report" but the total VMT of the campus was not calculated. • The increase in VMT was not broken down by user type. • Not enough information was provided to know whether this increase was calculated based on full or half accounting, or whether it was calculated in accordance with SB 743 guidelines.	California State University Maritime Academy Physical Master Plan Environmental Impact Report: https://www.dropbox.com/s/peqxbtupcfr798u/Cal%20Maritime%20Academy%20Project%20Public%20Review%20Draft%20EIR.pdf?dl=0	There are no trip-based travel demand forecasting models (TDMs) for this area.
Chico	Butte County Association of Governments (BCAG) Model	2014	N/A (see "Notes" column)	16,500	2036	N/A (see "Notes" column)	23,504	N/A	N/A	N/A	• The City of Chico has its own VISUM TDM. If you'd like information from that model, contact the City. Although note that the City uses the BCAG model instead of its own TDM. • There is no land use category represented in the BCAG model.
East Bay	• **For the Concord campus:** Contra Costa Transportation Authority (CCTA) 4 Step Model • **For the Hayward campus:** Trip-based Alalmeda County Transportation Commission (ACTC) Travel Demand Model	2010 for both models	• **CCTA:** 107 • **ACTC:** 1,774	• **CCTA:** 900 • **ACTC:** 13,061	2040 for both models	• **CCTA:** 210 • **ACTC:** 2,161	• **CCTA**: 0 • **ACTC:** 13,061	This online tool called "Simulated VMT per Capita by Place of Residence": https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=5dac76d69b3d41e583882e146491568b	N/A	N/A	
Humboldt	Humboldt County Travel Demand Forecasting model	See "Notes" column	See "Notes" column	See "Notes" column	See "Notes" column	See "Notes" column	See "Notes" column	See "Notes" column	N/A	N/A	We reached out to Caltrans about information on this TDM multiple times and did not hear back.
Sacramento	• Sacramento Metropolitan Travel Demand Model (SACMET) • Sacramento Activity-Based Travel Simulation Model (SACSIM)	• **SACMET:** 2012 • **SACSIM:** 2012	• **SACMET:** 3,388 • **SACSIM:** 3,239	• **SACMET:** 28,016 • **SACSIM:** 28,016	• **SACMET:** 2036 • **SACSIM:** 2036	• **SACMET:** 4,262 • **SACSIM:** 3,890	• **SACMET:** 36,419 • **SACSIM:** 36,419	N/A	• Reductions in VMT from commuter student trips between campus, and other trips (e.g. shopping trips) if the Campus Master Plan was implemented were estimated on pages 68 and 73, for Existing Plus Project and Future Plus Project conditions, respectively, but total VMT of the campus was not estimated. • Reductions in VMT for other user types, like faculty or staff, weren't estimated. • Not enough information was provided to know whether full or half accounting was used, or if VMT was estimated in accordance with SB 743 guidelines	CSU Sacramento Master Plan: http://www.csus.edu/aba/facilities/documents/csu%20sacramento%20master%20plan%20final%20eir%20_%20web.pdf	
San Francisco	• SF-Champ, San Francisco's TDM • The Bay Area's Metropolitan Transportation Commission's Travel Model One (TMO) Activity Based Model	• **SF-Champ:** 2012 • **TMO:** 2015	• **SF-Champ:** 881 • **TMO:** 9,410	• **SF-Champ:** 18,651 • **TMO:** 24,550	2040 for both models	• **SF-Champ:** 1,545 • **TMO:** 11,656	• **SF-Champ:** 18,651 • **TMO:** 31,298	N/A	• Total Miles Traveled per day by users of the SF State Shuttle Bus, people who drive alone, people who carpool, people who use the Muni Diesel Vehicles, and people who use the Muni Electric Vehicles were calculated on page 15 of the campus' Climate Action Plan. • Not enough information provided to know whether full or half accounting was used, or if SB 743 guidelines were followed.	San Francisco State University Climate Action Plan: https://sustain.sfsu.edu/sites/default/files/assets/doc/SFState_CAP.pdf	
San José	• Valley Transportation Authority (VTA) TDM • City of San Jose (San Jose) TDM	• **VTA:** 2013 • **San Jose:** 2008	• **VTA:** 2,869 • **San Jose:** 3,712	• **VTA:** 34,100 • **San Jose:** 34,100	• **VTA:** 2040 • **San Jose:** 2030	• **VTA:** 3,164 • **San Jose:** ?	• **VTA:** 34,100 • **San Jose:** ?	A sketch-level VMT tool that the City of San Jose developed here, although this tool is more appropriate for land development projects than campuses: http://www.sanjoseca.gov/vmt	N/A	N/A	We do not have access to Future Year Employment and College Population inputs for the City of San José's TDM.

Campus	Potential Travel Demand Forecasting Models to Estimate VMT	Base Year	Base Year - Employment	Base Year - Students	Future Year	Future Year - Employment	Future Year - Students	Other Dedicated VMT Estimators Available	Information on Existing Campus VMT Estimates	Link to Reports with VMT Estimates	Notes
Sonoma	Sonoma County Transportation Authority (SCTA) 4 Step Model	2005	6,404	8,384	2030	471,404	24,498	N/A	N/A	N/A	
Central											
Bakersfield	Kern Council of Governments (Kern COG) TDM	2017	1,392	9,368	2042	1,589	14,751	The Mixed Use Developed (MXD) Trip Generation and Travel Demand Management (TDM) post-processor for project-level VMT tool.	• VMT was estimated for the University Place Office Park Project, on page 86 of the report "CSUB University Place Office Park Project - Draft Initial Study-Mitigated Negative", but total VMT for the campus was not estimated. • The CalEEMod tool was used to estimate VMT. • VMT was not broken down by user type. • Not enough information was provided to know whether full or half accounting was used to estimate VMT, or if VMT was estimated based on SB 743 guidelines.	CSUB University Place Office Park Project Draft Initial Study: http://www.csub.edu/discover/_files/CSUB_Office_Draft_IS-MND.pdf	The post-processor VMT tool is not meant for universities, it's just a general tool.
Fresno	Fresno Council of Governments (Fresno COG) Model	2014	12,661	16,256	Both 2035 and 2042 are Future Years	• **2035:** 14,190 • **2042:** 13,904	• **2035:** 19,259 • **2042:** 20,013	Envision Tomorrow: https://frego.com/envision-tomorrow/	N/A	N/A	
Monterey Bay	Association of Monterey Bay Area Governments (AMBAG) TDM	2010	485	4,596	2035	454	5,170	N/A	Total campus VMT was not estimated, however the potential of the Promontory Project to decrease VMT was discussed on page 69 of The Promontory at California State University Monterey Bay (CSUMB) Specific Plan. Exactly how much VMT would decrease from the project was not discussed. The report just says that since the project is an infill development, VMT should decrease.	Initial Study for The Promontory at California State University Monterey Bay Specific Plan: https://csumb.edu/sites/default/files/images/st-block-88-1471897379448-raw-rbfthepromontoryatcsumbinitialstudymitigatednegativedeclaration.pdf	
San Luis Obispo	San Luis Obispo Council of Governments (SLOCOG) TDM	**SLOCOG:** 2010	**SLOCOG:** 2,843	**SLOCOG:** 19,325	**SLOCOG:** 2020	**SLOCOG:** 2,945	**SLOCOG:** 24,000	N/A	• VMT was estimated on page 273 of the Draft Environmental Impact Report for CSU San Luis Obispo's 2035 Master Plan • VMT was broken down by the following user types: Faculty/Staff and Off-Campus Students • Full accounting was used to estimate VMT, which is consistent with SB 743 guidelines	Draft Environmental Impact Report for CSU San Luis Obispo's 2035 Master Plan: http://masterplan.calpoly.edu/wp-content/uploads/2017/11/01_Cal-Poly-Master-Plan-2035-Draft-EIR_November-2017.pdf	The City of San Luis Obispo has its own TDM, however Fehr & Peers does not have access to recent copies of it. If you'd like to use that model, please contact the City.
Stanislaus	Stanislaus Council of Governments (StanCOG) TDM	2008	96	8,601	Not Available	Not Available	Not Available	N/A	N/A	N/A	We do not have access to Future Year inputs for the StanCOG TDM.
Southern											
Channel Islands	Ventura County Transportation Commission (VCTC) TDM	2012	835	4,617	2040	835	4,824	N/A	•Annual VMT from the East Campus Residential Neighborhood Project was estimated on page 254 of the report "CSUCI Specific Reuse Plan Amendment Draft Environmental Impact Report" but total VMT for the campus was not estimated. • Annual VMT from the project was estimated for passenger cars, light/medium trucks, heavy trucks/other, and motorcycles. • Not enough information was provided to determine whether full or half accounting was used, or if VMT was estimated based on SB 743 guidelines.	CSUCI Specific Reuse Plan Amendment Draft Environmental Impact Report: https://www.csuci.edu/ci-2025/documents/specific-reuse-plane-phase-2-draft-eir.pdf	
Dominguez Hills	Southern California Association of Governments (SCAG) TDM	2012	2,061	12,933	2040	2,568	13,017	N/A	N/A	N/A	
Fullerton	• Orange County Transportation Authority Model (OCTAM) TDM • SCAG TDM	2012 for both models	• **OCTAM:** 1,526 • **SCAG:** 6,242	• **OCTAM:** 31,635 • **SCAG:** 31,847	2040 for both models	• **OCTAM:** 2,266 • **SCAG:** 9,088	• **OCTAM:** 34,747 • **SCAG:** 32,210	N/A	N/A	N/A	
Long Beach	SCAG TDM	2012	7,128	38,131	2040	7,854	38,379	N/A	N/A	N/A	
Los Angeles	• City of Los Angeles' (LA) TDM • SCAG TDM	2012 for both models	• **LA:** 2,335 • **SCAG:** 508	• **LA:** 26,472 • **SCAG:** 26,472	2040 for both models	• **LA:** 3,244 • **SCAG:** 1,284	• **LA:** 26,644 • **SCAG:** 26,644	N/A	• Total campus VMT was not estimated, but an estimated decrease in VMT by commuter students due to the North Campus Project was discussed on page 52 of The North Campus Project Environmental Impact Report. • Decreases in VMT for other user types, like faculty, were not discussed. • Full accounting was used, which is consistent with SB 743 guidelines.	Final EIR for the North Campus Project: http://www.calstatela.edu/sites/default/files/groups/FPDC/preliminary_csula_north_campus_eir.pdf	

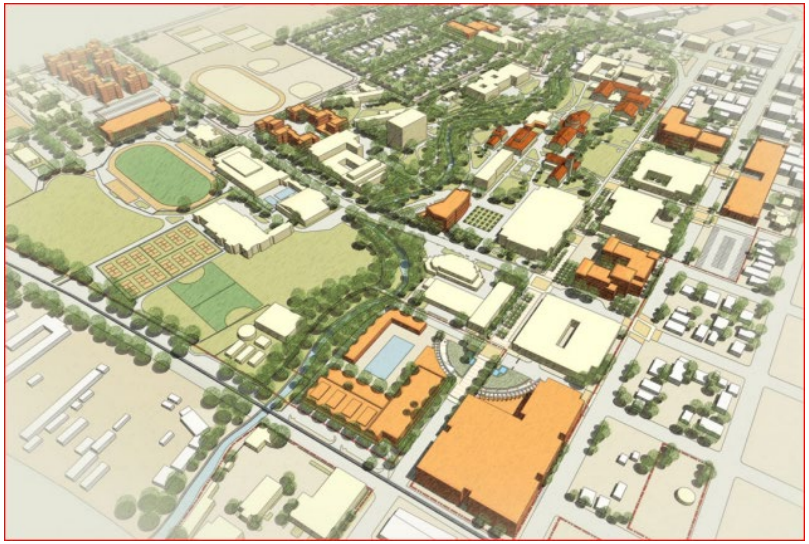
Campus	Potential Travel Demand Forecasting Models to Estimate VMT	Base Year	Base Year - Employment	Base Year - Students	Future Year	Future Year - Employment	Future Year - Students	Other Dedicated VMT Estimators Available	Information on Existing Campus VMT Estimates	Link to Reports with VMT Estimates	Notes
Northridge	• City of Los Angeles' (LA) TDM • SCAG TDM	2012 for both models	• **LA:** 11,826 • **SCAG:** 6,321	• **LA:** 36,438 • **SCAG:** 36,438	2040 for both models	• **LA:** 12,540 • **SCAG:** 6,507	• **LA:** 36,674 • **SCAG:** 36,674	N/A	Total campus VMT has not been estimated, but it was predicted that the Tseng College of Extended Learning Building Project would not significantly increase VMT, on page 17 of the CSUN 2005 Master Plan Update Final EIR Addendum.	This report is not available online. For more information on the CSUN 2005 Master Plan Update Final EIR, see: http://www.csun.edu/pubrels/envision2035/documents.html	
Pomona	• SCAG TDM • Pomona Traffic Analysis Model (PTAM)	• **SCAG:** 2012 • **PTAM:** 2008	• **SCAG:** 3,842 • **PTAM:** 224	• **SCAG:** 28,907 • **PTAM:** 27,737	• **SCAG:** 2040 • **PTAM:** 2035	• **SCAG:** 4,746 • **PTAM:** 241	• **SCAG:** 29,095 • **PTAM:** 29,737	N/A	• Estimated VMT reductions from commuter students by replacing student housing are included on page 43 of the Final Environmental Impact Report (EIR) for Student Housing Replacement, but total campus VMT was not estimated. VMT reductions were not calculated for other users, such as faculty. • Full accounting was used to estimate the VMT reductions, which is consistent with SB 743 guidelines. • Reducing VMT by Faculty and Staff by 10% is a goal of the Climate Action Plan (CAP), as stated on page 18, but the CAP doesn't include VMT estimates.	• Final EIR for Student Housing Replacement: https://www.cpp.edu/~fpm/planning-design-construction/docs/student-housing-replacement-final-eir-08-2016.pdf • CAP: https://www.cpp.edu/~sustainability/pdf/CPP_CAP_091109.pdf	
San Bernardino	• For main campus: San Bernardino Traffic Analysis Model (SBTAM) • For Palm Desert campus: Riverside County Traffic Analysis Model (RIVTAM)	• **SBTAM:** 2012 • **RIVTAM:** 2008	• **SBTAM:** 0 • **RIVTAM:** 826	• **SBTAM:** 17,800 • **RIVTAM:** 0	• **SBTAM:** 2040 • **RIVTAM:** 2035	• **SBTAM:** 612 • **RIVTAM:** 2,016	• **SBTAM:** 25,100 • **RIVTAM:** 0	N/A	• On page 93 of the Final EIR for CSU San Bernardino's 2016 Campus Master Plan, VMT was estimated for the main campus for existing and master plan enrollment. Under each condition, VMT was broken down by the following user types: on-campus students, off-campus students, and faculty/staff. For Master Plan enrollment, an additional user type was analyzed: "Discovery Park Employees". • Full accounting was used to estimate VMT, which is consistent with SB 743. • VMT was also estimated in the Final EIR for the 2016 Campus Master Plan for CSU San Bernardino's Palm Desert Campus, on page 96. • VMT was estimated for existing and master plan enrollment. Under each condition, VMT was broken down by: off-campus students and faculty/staff. For Master Plan Enrollment, there was an additional user type: on-campus students. • Full accounting was used to estimate VMT for the Palm Desert Campus, which is consistent with SB 743	• Master Plan for CSUSB: https://www.csusb.edu/sites/csusb/files/08-28-17%20CSUSB%20Final%20EIR_appendices%20%28WEB%29.pdf • Master Plan for CSUSB, Palm Desert: https://www.csusb.edu/sites/csusb/files/12-19-2017%20CSUSB%20PDC%20Final%20EIR%202016%20Campus%20Master%20Plan.pdf	
San Diego	San Diego Association of Governments (SANDAG) TDM	2012	11,979	10,892	2050	39,157	15,961	N/A	• On page 10 of the report "Pathways Toward Zero-Carbon Campus Commuting: Innovative in Measuring, Understanding, and Reducing Greenhouse Gas Emissions", Annual Total Miles for 2016-2017 for students, faculty, and staff were calculated, but the report doesn't say how this number was calculated or whether the methodology is consistent with SB 743. • Page 40 of the GHG emissions section of the EIR for a new student housing project says that the project would result in 3,793 VMT per day, but there are no details on how that number was calculated	• Pathways Toward Zero-Carbon Campus Commuting: https://trid.trb.org/view/1496845 • GHG Emissions section of the EIR: http://advancement.sdsu.edu/PDFs/FEIR/Revised_DEIR/4_7_Greenhouse_Gas_Emissions.pdf	
San Marcos	SanDAG TDM	2012	2,536	7,405	2050	12,260	10,854	N/A	N/A	N/A	

Appendix C – Test Case: CSUSB Master Plan

SB 743 Implementation

Step 2 – Master Plan or Non-Screened Out Project Generated VMT Assessment

- Key considerations:
  - To ensure the ability to maintain consistency between efficiency metrics, recommend use of the local or regional travel demand model.
  - Can compare campus VMT/person (or other efficiency metric) to citywide or regional totals



Test Case – CSUSB MP

Project Generated VMT Assessment

- Draft Threshold: CSU projects should estimate VMT per person and strive to be 15% less than the citywide, subregional, or regional average – **Master Plan generated VMT**
- Consistent with the State guidelines/recommendations

Test Case – CSUSB MP

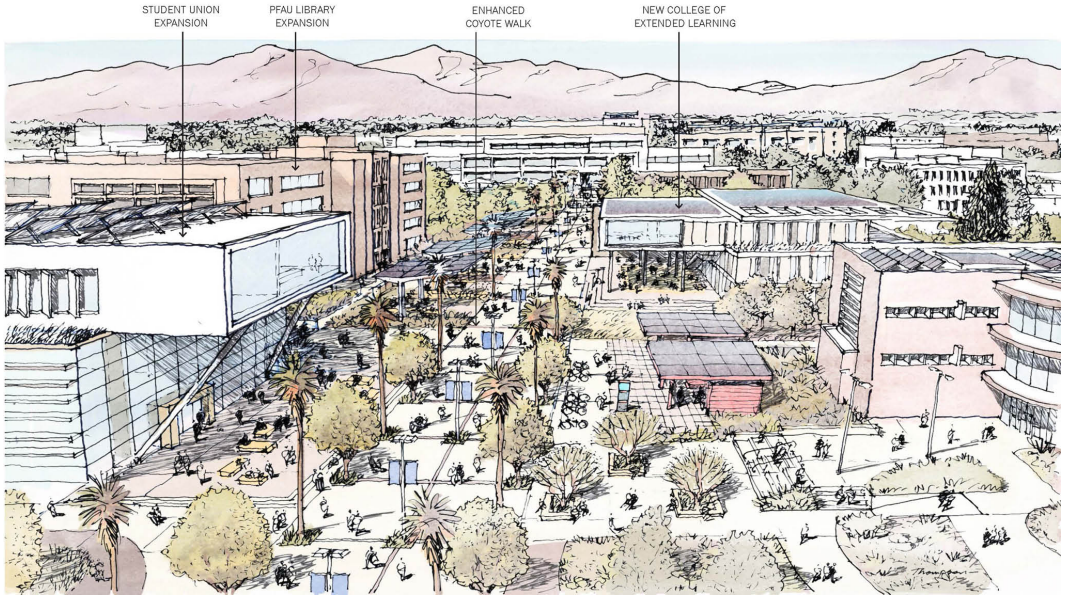
Master Plan Generated VMT Assessment

Table 2: Project Impact Assessment		
VMT Per Service Population (Includes Students as Noted Above)	**Existing VMT**	**15% Below Existing Threshold (Project Impact)**
Project Generated VMT	***16.0***	
Citywide (City of San Bernardino) VMT	22.4	***19.0***
Regional VMT	23.6	***20.1***
Does Project Exceed Applicable Project Threshold?		***No***

SB 743 Implementation

Step 3 – Effect on VMT (Cumulative Assessment)

- Is the Master Plan/project better than or worse than RTP assumptions (e.g. is VMT per person higher compared to the RTP)



Test Case – CSUSB MP

Effect on Regional or City VMT (Cumulative Assessment)

- Draft Threshold: CSU projects should result in VMT per person that is the same as or lower than the citywide, subregional, or regional average – **Effect on VMT (Cumulative Assessment)**
    - Is regional or citywide VMT increasing with the project?
- Consistent with the State guidelines/ recommendations

Test Case – CSUSB MP

Effect on Regional or City VMT (Cumulative Assessment)

Table 3: Cumulative Impact Assessment			
VMT Per Service Population (Includes Students as Noted Above)	**2040 RTP/SCS**	**2040 With Project**	**Difference**
City of San Bernardino	25.5	25.3	-0.2
Valley Region of San Bernardino	28.0	27.9	-0.1
Does Project Exceed Cumulative Threshold?			**No**

Test Case – CSUSB MP

Step 4 - Impacts and Mitigation

- No Significant Impacts As:
  - Master Plan Generated VMT was less than 15% of the Citywide and Regional averages
  - Effect on VMT (Cumulative) was less than the Citywide or sub-regional average
- Mitigation:
  - No impacts, so no mitigation required
  - If mitigation is required for a significant impact, consider land use changes such as more on-campus housing, land use location change, and/or transportation demand management (TDM)
  - Roadway improvements are no longer required to mitigate significant impacts
  - Campus's can invest in TDM instead of roadway improvements; supports CAP Goals and Active Transportation

APPENDIX B

MTS BUS ROUTE TIMETABLES AND ROUTE INFORMATION

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Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

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Effective June 30, 2023

20

Downtown San Diego ↔ Rancho Bernardo Station
via Fashion Valley

110

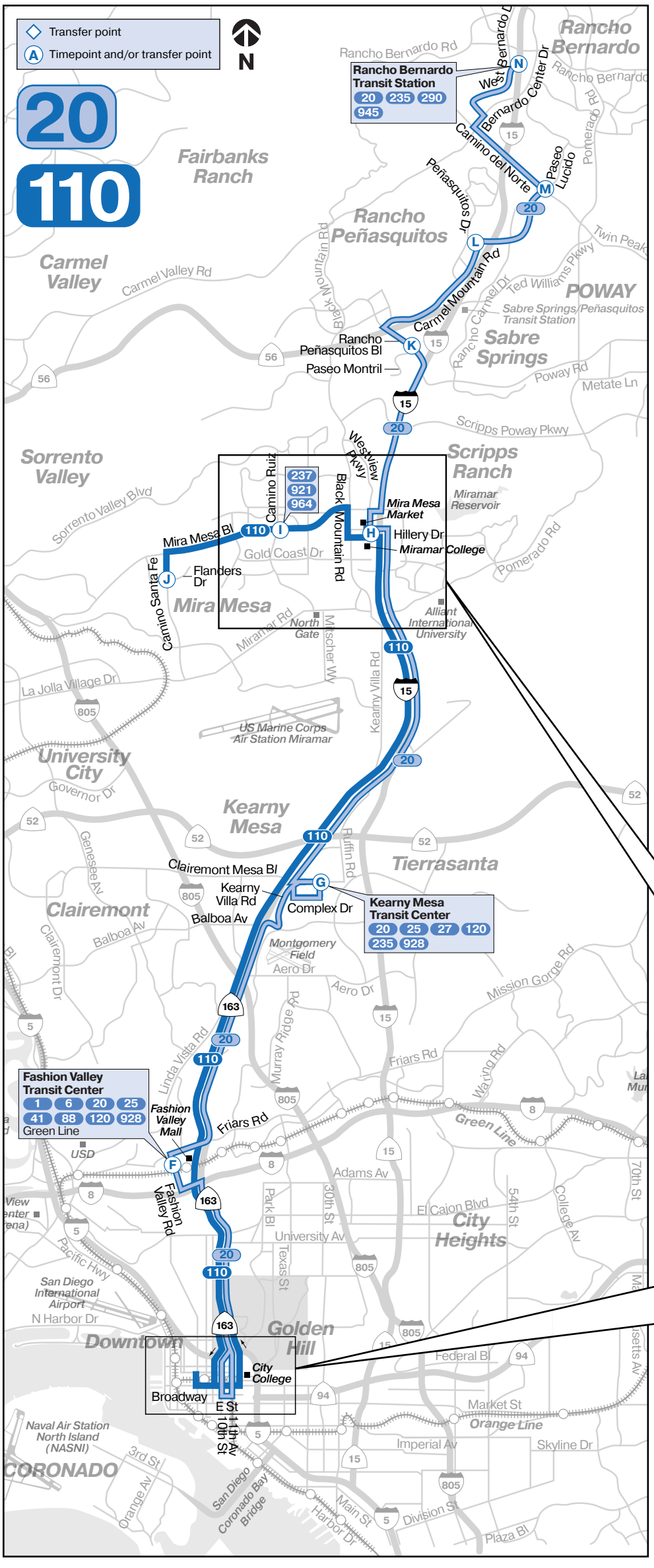
Downtown San Diego ↔ Mira Mesa Express
via I-15 / Hwy 163

Bus Routes

Destinations
- City College
- Downtown Courthouse (110)
- Fashion Valley Mall (20)
- Miramar College
- Mira Mesa Market

Trolley Connections
- City College
- Fashion Valley (20)

Subject to change without notice
Sujeto a cambios sin previo aviso



110 Monday through Friday • *lunes a viernes*

Morning Only

Mira Mesa → Downtown San Diego

J Camino Santa Fe & Flanders Dr. **DEPART**	I Mira Mesa Bl. & Camino Ruiz	H Miramar College Transit Station	D 10th Av. & B St.	C Broadway & 5th Av.	B Broadway & Union St. **ARRIVE**
6:02a	6:07a	6:15a	6:33a	6:37a	6:41a
6:22	6:27	6:35	6:53	6:57	7:01
6:41	6:46	6:55	7:14	7:18	7:23
7:04	7:10	7:20	7:41	7:45	7:51

110 Monday through Friday • *lunes a viernes*

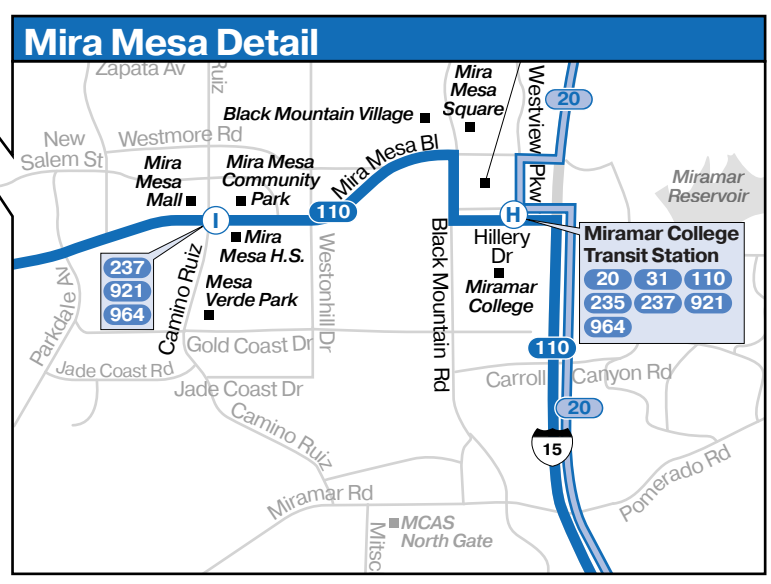
Afternoon Only

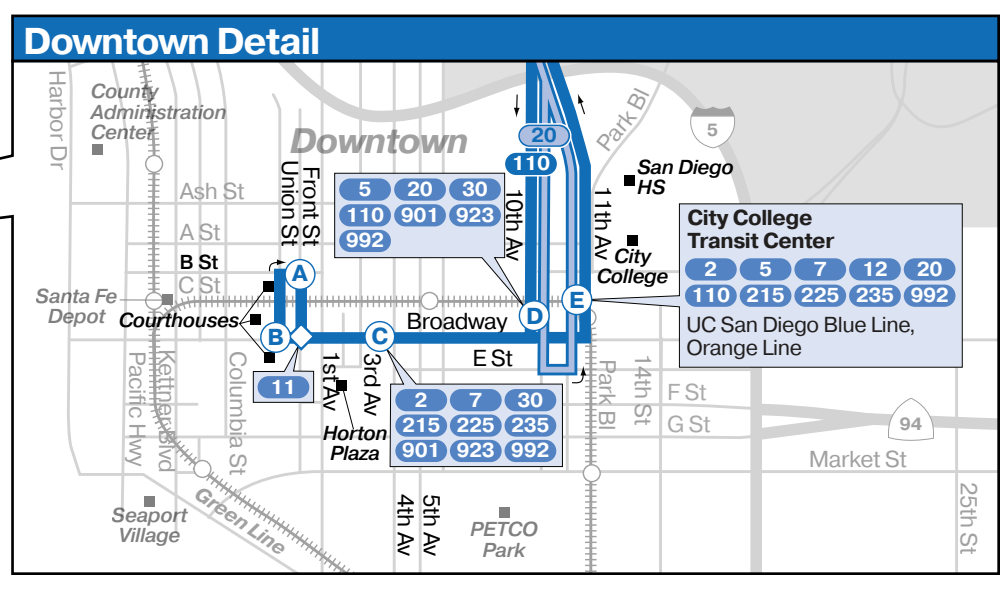
Downtown San Diego → Mira Mesa

A Front St. & B St. **DEPART**	C Broadway & 3rd Av.	E City College Transit Center (11th & B)	H Miramar College Transit Station	I Mira Mesa Bl. & Camino Ruiz	J Camino Santa Fe & Flanders Dr. **ARRIVE**
4:01p	**4:05p**	**4:12p**	**4:35p**	**4:46p**	**4:55p**
4:26	**4:30**	**4:37**	**5:00**	**5:11**	**5:20**
4:51	**4:55**	**5:02**	**5:26**	**5:37**	**5:47**
5:21	**5:25**	**5:32**	**5:56**	**6:07**	**6:17**

Gray-shaded times are approximate; trip may run earlier than scheduled. / *Los tiempos sombreados en gris son aproximados; los viajes pueden operar más temprano de lo que se indica.*

Route 110 does not operate on weekends or on the following holidays and observed holidays:
La ruta 110 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados: **New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas**





20 Monday through Friday • *lunes a viernes*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	4:56a	5:06a	5:08a	5:21a	5:32a	5:39a	5:47a	5:53a	6:01a
—	5:26	5:36	5:38	5:52	6:03	6:10	6:18	6:25	6:34
—	5:41	5:51	5:53	6:08	—	—	—	—	—
5:53a	5:56	6:06	6:08	6:23	6:34	6:42	6:50	6:57	7:07
6:08	6:11	6:21	6:23	6:38	—	—	—	—	—
6:23	6:26	6:36	6:38	6:54	7:06	7:14	7:23	7:30	7:40
6:38	6:41	6:51	6:53	7:09	—	—	—	—	—
6:53	6:56	7:06	7:08	7:24	7:36	7:44	7:53	8:00	8:10
7:08	7:11	7:21	7:23	7:39	—	—	—	—	—
7:23	7:26	7:36	7:38	7:54	8:06	8:14	8:23	8:30	8:41
7:38	7:41	7:51	7:53	8:09	—	—	—	—	—
7:53	7:56	8:06	8:08	8:24	8:36	8:44	8:53	9:00	9:11
8:08	8:11	8:21	8:23	8:39	—	—	—	—	—
8:23	8:26	8:36	8:38	8:54	9:06	9:14	9:23	9:30	9:41
8:38	8:41	8:51	8:53	9:08	—	—	—	—	—
8:53	8:56	9:06	9:08	9:23	9:34	9:42	9:51	9:58	10:08
9:23	9:26	9:36	9:38	9:53	10:04	10:12	10:21	10:28	10:38
9:53	9:56	10:06	10:08	10:23	10:34	10:42	10:51	10:58	11:08
10:23	10:26	10:36	10:38	10:53	11:04	11:12	11:21	11:28	11:38
10:53	10:56	11:06	11:08	11:23	11:34	11:42	11:51	11:58	**12:08p**
11:23	11:26	11:36	11:38	11:53	**12:04p**	**12:12p**	**12:21p**	**12:28p**	**12:38**
11:53	11:56	**12:07p**	**12:09p**	**12:24p**	**12:35**	**12:44**	**12:53**	**1:00**	**1:10**
12:23p	**12:26p**	**12:37**	**12:39**	**12:54**	**1:05**	**1:14**	**1:23**	**1:30**	**1:40**
12:53	**12:56**	**1:07**	**1:09**	**1:24**	**1:35**	**1:44**	**1:53**	**2:00**	**2:10**
1:23	**1:26**	**1:37**	**1:39**	**1:55**	**2:06**	**2:15**	**2:25**	**2:32**	**2:42**
1:53	**1:56**	**2:07**	**2:09**	**2:26**	**2:37**	**2:46**	**2:56**	**3:03**	**3:13**
2:23	**2:26**	**2:37**	**2:39**	**2:56**	**3:08**	**3:18**	**3:29**	**3:36**	**3:47**
2:52	**2:55**	**3:06**	**3:08**	**3:25**	**3:37**	**3:47**	**3:58**	**4:05**	**4:16**
3:07	**3:10**	**3:21**	**3:23**	**3:40**	—	—	—	—	—
3:22	**3:25**	**3:36**	**3:38**	**3:55**	**4:08**	**4:18**	**4:29**	**4:36**	**4:47**
3:37	**3:40**	**3:51**	**3:53**	**4:10**	—	—	—	—	—
3:52	**3:55**	**4:06**	**4:08**	**4:25**	**4:38**	**4:48**	**4:59**	**5:06**	**5:17**
4:07	**4:10**	**4:21**	**4:23**	**4:40**	—	—	—	—	—
4:22	**4:25**	**4:36**	**4:38**	**4:55**	**5:08**	**5:18**	**5:29**	**5:36**	**5:47**
4:37	**4:40**	**4:51**	**4:53**	**5:10**	—	—	—	—	—
4:52	**4:55**	**5:06**	**5:08**	**5:25**	**5:38**	**5:48**	**5:59**	**6:06**	**6:17**
5:07	**5:10**	**5:21**	**5:23**	**5:40**	—	—	—	—	—
5:23	**5:26**	**5:37**	**5:39**	**5:55**	**6:08**	**6:18**	**6:28**	**6:35**	**6:45**
5:53	**5:56**	**6:07**	**6:09**	**6:24**	**6:36**	**6:45**	**6:54**	**7:01**	**7:10**
6:23	**6:26**	**6:37**	**6:39**	**6:54**	**7:06**	**7:15**	**7:24**	**7:31**	**7:40**
6:54	**6:57**	**7:07**	**7:09**	**7:23**	**7:35**	**7:44**	**7:53**	**8:00**	**8:08**
7:24	**7:27**	**7:37**	**7:39**	**7:53**	**8:04**	**8:12**	**8:20**	**8:26**	**8:34**
7:54	**7:57**	**8:07**	**8:09**	**8:23**	**8:34**	**8:42**	**8:50**	**8:56**	**9:04**
8:54	**8:57**	**9:07**	**9:09**	**9:23**	—	—	—	—	—

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
5:13a	5:21a	5:27a	5:36a	5:45a	5:55a	6:08a	6:10a	6:21a
5:42	5:50	5:57	6:06	6:15	6:25	6:38	6:40	6:51
—	—	—	—	—	6:54	7:08	7:10	7:21
6:19	6:28	6:35	6:46	6:58	7:09	7:23	7:25	7:36
—	—	—	—	—	7:24	7:38	7:40	7:52
6:47	6:57	7:04	7:16	7:28	7:39	7:53	7:55	8:07
—	—	—	—	—	7:54	8:08	8:10	8:22
7:17	7:27	7:34	7:46	7:58	8:09	8:23	8:25	8:37
—	—	—	—	—	8:25	8:39	8:41	8:53
7:49	7:59	8:06	8:17	8:29	8:40	8:54	8:56	9:08
8:19	8:29	8:36	8:47	8:59	9:10	9:24	9:26	9:37
8:50	9:00	9:07	9:17	9:28	9:39	9:53	9:55	10:06
9:24	9:33	9:40	9:49	9:58	10:09	10:23	10:25	10:36
9:54	10:03	10:10	10:19	10:28	10:39	10:53	10:55	11:06
10:24	10:33	10:40	10:49	10:58	11:09	11:23	11:25	11:36
10:50	10:59	11:07	11:16	11:26	11:38	11:53	11:55	**12:06p**
11:20	11:29	11:37	11:46	11:56	**12:08p**	**12:23p**	**12:25p**	**12:36**
11:50	11:59	**12:07p**	**12:16p**	**12:26p**	**12:38**	**12:53**	**12:55**	**1:06**
12:20p	**12:29p**	**12:37**	**12:46**	**12:56**	**1:08**	**1:23**	**1:25**	**1:36**
12:50	**12:59**	**1:07**	**1:16**	**1:26**	**1:38**	**1:53**	**1:55**	**2:06**
1:20	**1:29**	**1:37**	**1:46**	**1:56**	**2:08**	**2:23**	**2:25**	**2:36**
—	—	—	—	—	**2:23**	**2:38**	**2:40**	**2:51**
1:50	**1:59**	**2:07**	**2:16**	**2:26**	**2:38**	**2:53**	**2:55**	**3:06**
—	—	—	—	—	**2:52**	**3:07**	**3:09**	**3:20**
2:15	**2:25**	**2:33**	**2:43**	**2:53**	**3:05**	**3:21**	**3:23**	**3:36**
—	—	—	—	—	**3:20**	**3:36**	**3:38**	**3:51**
2:42	**2:52**	**3:00**	**3:10**	**3:21**	**3:34**	**3:51**	**3:53**	**4:07**
—	—	—	—	—	**3:49**	**4:06**	**4:08**	**4:22**
3:09	**3:20**	**3:28**	**3:38**	**3:49**	**4:02**	**4:21**	**4:23**	**4:37**
—	—	—	—	—	**4:17**	**4:36**	**4:38**	**4:52**
3:39	**3:50**	**3:58**	**4:08**	**4:19**	**4:32**	**4:51**	**4:53**	**5:07**
—	—	—	—	—	**4:47**	**5:06**	**5:08**	**5:22**
4:09	**4:20**	**4:28**	**4:38**	**4:49**	**5:02**	**5:21**	**5:23**	**5:37**
—	—	—	—	—	**5:17**	**5:36**	**5:38**	**5:52**
4:39	**4:50**	**4:58**	**5:08**	**5:19**	**5:32**	**5:51**	**5:53**	**6:07**
—	—	—	—	—	**5:47**	**6:06**	**6:08**	**6:22**
5:12	**5:23**	**5:31**	**5:41**	**5:51**	**6:03**	**6:20**	**6:22**	**6:36**
5:44	**5:55**	**6:03**	**6:13**	**6:23**	**6:35**	**6:50**	**6:52**	**7:05**
6:18	**6:28**	**6:36**	**6:45**	**6:55**	**7:06**	**7:20**	**7:22**	**7:34**
6:51	**7:00**	**7:07**	**7:16**	**7:25**	**7:36**	**7:50**	**7:52**	**8:04**
7:22	**7:31**	**7:38**	**7:47**	**7:56**	**8:06**	**8:20**	**8:22**	**8:33**
8:11	**8:19**	**8:25**	**8:33**	**8:42**	**8:52**	**9:05**	**9:07**	**9:18**
9:12	**9:20**	**9:26**	**9:34**	**9:43**	**9:53**	**10:05**	**10:07**	**10:17**

20 Saturday • *sábado*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:11	6:21	6:23	6:36	6:47	—	—	—	—
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:09a	7:12	7:22	7:24	7:38	7:49	—	—	—	—
7:39	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:09	8:12	8:22	8:24	8:38	8:49	—	—	—	—
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:09	9:12	9:22	9:24	9:38	9:49	—	—	—	—
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:08	10:11	10:22	10:24	10:38	10:49	—	—	—	—
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:08	11:11	11:22	11:24	11:38	11:49	—	—	—	—
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:08p	**12:11p**	**12:22p**	**12:24p**	**12:39**	**12:50**	—	—	—	—
12:38	**12:41**	**12:52**	**12:54**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:08	**1:11**	**1:22**	**1:24**	**1:39**	**1:50**	—	—	—	—
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:08	**2:11**	**2:22**	**2:24**	**2:39**	**2:50**	—	—	—	—
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:08	**3:11**	**3:22**	**3:24**	**3:39**	**3:50**	—	—	—	—
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:08	**4:11**	**4:22**	**4:24**	**4:39**	**4:50**	—	—	—	—
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:08	**5:11**	**5:22**	**5:24**	**5:39**	**5:50**	—	—	—	—
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:09	**6:12**	**6:23**	**6:25**	**6:39**	**6:50**	—	—	—	—
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
—	—	—	—	6:12a	6:23a	6:35a	6:37a	6:47a
6:12a	6:20a	6:26a	6:34a	6:42	6:53	7:05	7:07	7:17
—	—	—	—	7:12	7:23	7:35	7:37	7:47
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
—	—	—	—	8:12	8:23	8:35	8:37	8:48
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
—	—	—	—	9:12	9:23	9:35	9:37	9:48
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
—	—	—	—	10:12	10:23	10:35	10:37	10:48
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
—	—	—	—	11:12	11:23	11:36	11:38	11:50
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
—	—	—	—	**12:12p**	**12:23p**	**12:36**	**12:38**	**12:50**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42**	**12:53**	**1:06**	**1:08**	**1:20**
—	—	—	—	**1:12**	**1:23**	**1:36**	**1:38**	**1:50**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
—	—	—	—	**2:12**	**2:23**	**2:36**	**2:38**	**2:50**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
—	—	—	—	**3:12**	**3:23**	**3:36**	**3:38**	**3:50**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
—	—	—	—	**4:12**	**4:23**	**4:36**	**4:38**	**4:50**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
—	—	—	—	**5:12**	**5:23**	**5:36**	**5:38**	**5:50**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
—	—	—	—	**6:11**	**6:22**	**6:35**	**6:37**	**6:48**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
—	—	—	—	**7:11**	**7:22**	**7:35**	**7:37**	**7:48**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**
8:13	**8:21**	**8:27**	**8:35**	**8:43**	**8:53**	**9:05**	**9:07**	**9:17**

20 Sunday • *domingo*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:39a	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:38p	**12:41p**	**12:52p**	**12:54p**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
6:12a	6:20a	6:26a	6:34a	6:42a	6:53a	7:05a	7:07a	7:17a
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42p**	**12:53p**	**1:06**	**1:08**	**1:20**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective August 31, 2025

31

UTC Transit Center ↔ Mira Mesa
via Miramar Road

921

UTC Transit Center ↔ Mira Mesa
via Mira Mesa Boulevard

Bus Routes

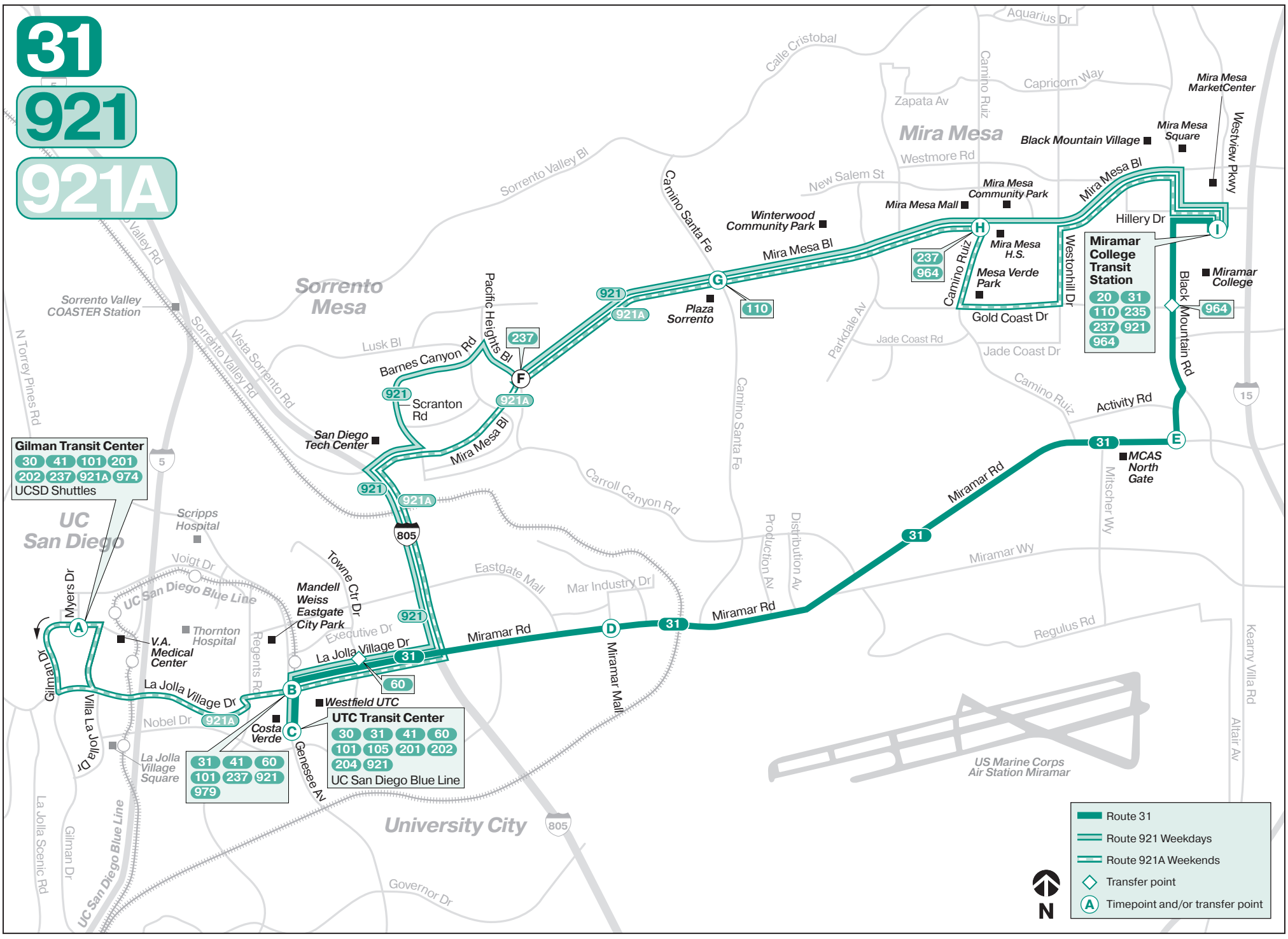
Destinations
- MCAS Miramar - North Gate (31)
- Miramar College Transit Station
- Mira Mesa Marketcenter
- Westfield UTC
- Mira Mesa High School / Mall / Marketcenter
- Sorrento Mesa (921)
- VA Medical Center (921A)
- UC San Diego (921A)

Trolley Connections
- UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS

31
921
921A



31 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C UTC Transit Center **DEPART**	D Miramar Rd. & Miramar Mall	E Black Mountain Rd. & Miramar Rd.	I Miramar College Transit Station **ARRIVE**
6:02a	6:08a	6:18a	6:25a
6:32	6:39	6:50	6:58
7:02	7:09	7:21	7:30
7:32	7:39	7:51	8:00
8:02	8:09	8:20	8:28
8:32	8:39	8:50	8:58
2:30p	**2:38p**	**2:51p**	**2:59p**
3:03	**3:11**	**3:24**	**3:32**
3:33	**3:41**	**3:55**	**4:04**
4:01	**4:09**	**4:23**	**4:32**
4:31	**4:39**	**4:53**	**5:02**
5:03	**5:11**	**5:25**	**5:34**
5:33	**5:41**	**5:55**	**6:04**
6:03	**6:10**	**6:23**	**6:31**
6:33	**6:40**	**6:51**	**6:58**

Miramar College Transit Station → UTC Transit Center

I Miramar College Transit Station **DEPART**	E Black Mountain Rd. & Miramar Rd.	D Miramar Rd. & Miramar Mall	C UTC Transit Center **ARRIVE**
5:39a	5:45a	5:58a	6:05a
6:09	6:15	6:29	6:37
6:39	6:46	7:00	7:09
7:08	7:15	7:29	7:38
7:38	7:46	8:00	8:10
8:08	8:16	8:30	8:40
8:38	8:46	9:00	9:10
9:09	9:17	9:31	9:41
2:41p	**2:48p**	**3:00p**	**3:10p**
3:11	**3:18**	**3:30**	**3:40**
3:41	**3:48**	**4:00**	**4:10**
4:11	**4:18**	**4:31**	**4:42**
4:41	**4:48**	**5:01**	**5:12**
5:11	**5:18**	**5:30**	**5:40**
5:49	**5:56**	**6:07**	**6:16**

Route 31 does not operate on weekends or on the following holidays and observed holidays / *La ruta 31 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

921 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C	F	G	H	I
UTC Transit Center **DEPART**	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Camino Ruiz	Miramar College Transit Station **ARRIVE**
6:17a	6:33a	6:38a	6:44a	6:53a
6:41	6:57	7:02	7:08	7:17
7:11	7:27	7:32	7:38	7:47
7:35	7:53	7:59	8:06	8:15
8:05	8:23	8:29	8:36	8:45
8:35	8:53	8:59	9:06	9:15
9:08	9:24	9:29	9:36	9:45
9:38	9:54	9:59	10:06	10:15
10:08	10:24	10:29	10:36	10:45
10:38	10:54	10:59	11:06	11:15
11:08	11:24	11:29	11:36	11:45
11:38	11:54	11:59	**12:06p**	**12:15p**
12:08p	**12:24p**	**12:29p**	**12:36**	**12:45**
12:38	**12:54**	**12:59**	**1:06**	**1:15**
1:06	**1:23**	**1:28**	**1:35**	**1:45**
1:36	**1:53**	**1:58**	**2:05**	**2:15**
2:11	**2:28**	**2:33**	**2:40**	**2:50**
2:41	**2:58**	**3:03**	**3:10**	**3:20**
3:11	**3:28**	**3:33**	**3:40**	**3:50**
3:39	**3:56**	**4:02**	**4:09**	**4:20**
4:06	**4:24**	**4:30**	**4:38**	**4:50**
4:36	**4:54**	**5:00**	**5:08**	**5:20**
5:06	**5:24**	**5:30**	**5:38**	**5:50**
5:31	**5:49**	**5:55**	**6:03**	**6:15**
6:04	**6:21**	**6:26**	**6:34**	**6:45**
6:36	**6:53**	**6:58**	**7:05**	**7:15**
7:07	**7:24**	**7:29**	**7:36**	**7:46**

Miramar College Transit Station → UTC Transit Center

I	H	G	F	C
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Pacific Heights Bl. & Mira Mesa Bl.	UTC Transit Center **ARRIVE**
5:35a	5:44a	5:50a	5:55a	6:12a
6:09	6:18	6:24	6:29	6:47
6:39	6:48	6:54	6:59	7:16
7:09	7:19	7:26	7:31	7:50
7:39	7:49	7:56	8:01	8:20
8:09	8:19	8:26	8:31	8:50
8:39	8:49	8:56	9:01	9:20
9:09	9:19	9:26	9:31	9:50
9:44	9:53	9:59	10:04	10:22
10:14	10:23	10:29	10:34	10:52
10:44	10:53	10:59	11:04	11:22
11:14	11:23	11:29	11:34	11:52
11:44	11:53	11:59	**12:04p**	**12:22p**
12:14p	**12:23p**	**12:29p**	**12:34**	**12:52**
12:44	**12:53**	**12:59**	**1:04**	**1:22**
1:14	**1:23**	**1:29**	**1:34**	**1:52**
1:44	**1:53**	**1:59**	**2:04**	**2:22**
2:14	**2:23**	**2:29**	**2:34**	**2:54**
2:39	**2:48**	**2:54**	**2:59**	**3:21**
3:06	**3:15**	**3:21**	**3:26**	**3:48**
3:36	**3:45**	**3:51**	**3:56**	**4:18**
4:07	**4:16**	**4:22**	**4:27**	**4:49**
4:37	**4:46**	**4:52**	**4:57**	**5:19**
5:07	**5:16**	**5:22**	**5:27**	**5:49**
5:37	**5:46**	**5:52**	**5:57**	**6:19**
6:07	**6:16**	**6:22**	**6:27**	**6:46**
6:35	**6:44**	**6:50**	**6:55**	**7:14**

921A Saturday and Sunday • *sábado y domingo*

Gilman Transit Center → Miramar College Transit Station

A	B	F	G	H	I
Gilman Transit Center (UCSD) **DEPART**	La Jolla Village Dr. & Genesee Av.	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Camino Ruiz & Mira Mesa Bl.	Miramar College Transit Station **ARRIVE**
A 7:19a	7:29a	7:37a	7:40a	7:45a	7:57a
A 8:19	8:29	8:37	8:40	8:45	8:57
A 9:19	9:30	9:39	9:42	9:48	10:01
A 10:19	10:30	10:39	10:42	10:48	11:01
A 11:19	11:30	11:39	11:42	11:48	**12:01p**
A **12:19p**	**12:30p**	**12:39p**	**12:42p**	**12:48p**	**1:01**
A **1:19**	**1:30**	**1:39**	**1:42**	**1:48**	**2:01**
A **2:19**	**2:30**	**2:39**	**2:42**	**2:48**	**3:01**
A **3:19**	**3:30**	**3:39**	**3:42**	**3:48**	**4:01**
A **4:19**	**4:30**	**4:39**	**4:42**	**4:48**	**5:01**
A **5:18**	**5:29**	**5:38**	**5:41**	**5:47**	**6:00**
A **6:18**	**6:29**	**6:38**	**6:41**	**6:47**	**7:00**
A **7:22**	**7:32**	**7:40**	**7:43**	**7:48**	**8:00**

Miramar College Transit Station → Gilman Transit Center

I	H	G	F	B	A
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Pacific Heights Bl.	La Jolla Village Dr. & Genesee Av.	Gilman Transit Center (UCSD) **ARRIVE**
A 7:27a	7:39a	7:44a	7:47a	7:55a	8:04a
A 8:27	8:39	8:44	8:47	8:55	9:04
A 9:28	9:42	9:47	9:50	9:59	10:09
A 10:28	10:42	10:47	10:50	10:59	11:09
A 11:28	11:42	11:47	11:50	11:59	**12:09p**
A **12:28p**	**12:42p**	**12:47p**	**12:50p**	**12:59p**	**1:09**
A **1:28**	**1:42**	**1:47**	**1:50**	**1:59**	**2:09**
A **2:28**	**2:42**	**2:47**	**2:50**	**2:59**	**3:09**
A **3:28**	**3:42**	**3:47**	**3:50**	**3:59**	**4:09**
A **4:27**	**4:41**	**4:46**	**4:49**	**4:58**	**5:08**
A **5:27**	**5:41**	**5:46**	**5:49**	**5:58**	**6:08**
A **6:27**	**6:41**	**6:46**	**6:49**	**6:58**	**7:08**

A = Saturday/Sunday trips have an alternate routing in Mira Mesa & Sorrento Mesa. See map. / *Viajes de sábado/domingo tienen ruta alternativa en Mira Mesa y Sorrento Mesa. Vea el mapa.*

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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MTS Security *MTS Seguridad*	**619-595-4960**
MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective June 30, 2023

20

Downtown San Diego ↔ Rancho Bernardo Station
via Fashion Valley

110

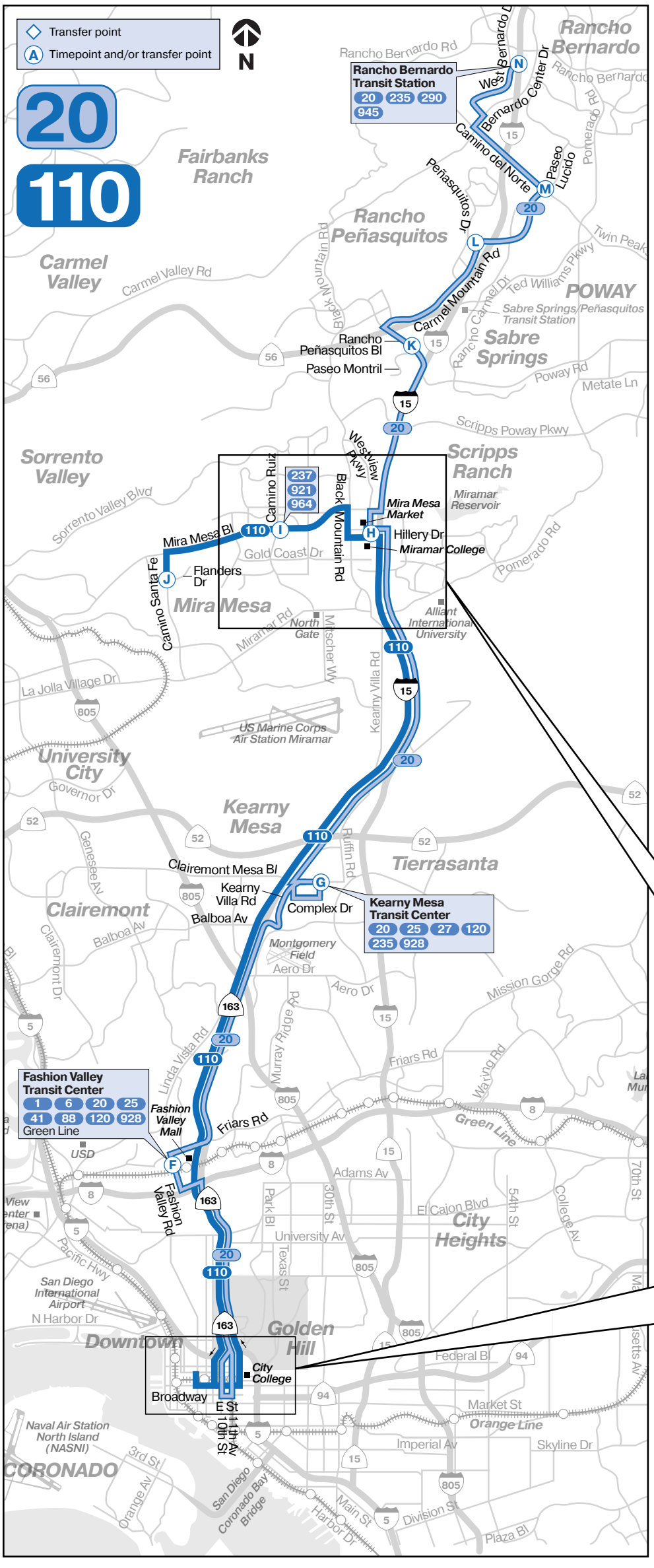
Downtown San Diego ↔ Mira Mesa Express
via I-15 / Hwy 163

Bus Routes

Destinations
- City College
- Downtown Courthouse (110)
- Fashion Valley Mall (20)
- Miramar College
- Mira Mesa Market

Trolley Connections
- City College
- Fashion Valley (20)

Subject to change without notice
Sujeto a cambios sin previo aviso



110 Monday through Friday • *lunes a viernes*

Morning Only

Mira Mesa → Downtown San Diego

J Camino Santa Fe & Flanders Dr. **DEPART**	I Mira Mesa Bl. & Camino Ruiz	H Miramar College Transit Station	D 10th Av. & B St.	C Broadway & 5th Av.	B Broadway & Union St. **ARRIVE**
6:02a	6:07a	6:15a	6:33a	6:37a	6:41a
6:22	6:27	6:35	6:53	6:57	7:01
6:41	6:46	6:55	7:14	7:18	7:23
7:04	7:10	7:20	7:41	7:45	7:51

110 Monday through Friday • *lunes a viernes*

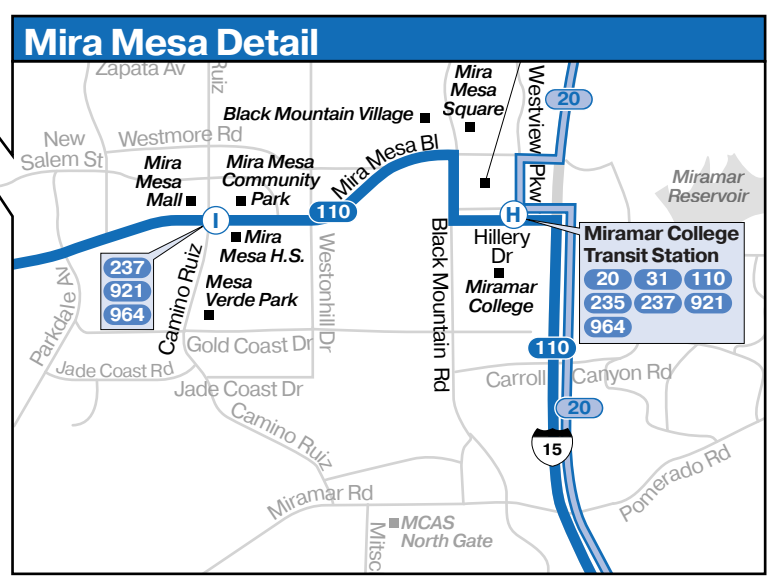
Afternoon Only

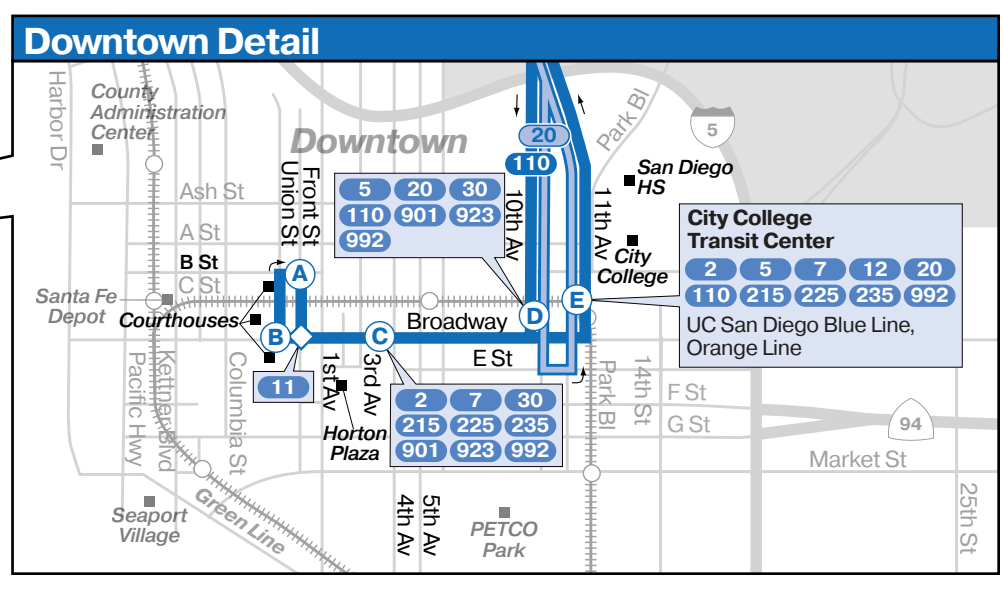
Downtown San Diego → Mira Mesa

A Front St. & B St. **DEPART**	C Broadway & 3rd Av.	E City College Transit Center (11th & B)	H Miramar College Transit Station	I Mira Mesa Bl. & Camino Ruiz	J Camino Santa Fe & Flanders Dr. **ARRIVE**
4:01p	**4:05p**	**4:12p**	**4:35p**	**4:46p**	**4:55p**
4:26	**4:30**	**4:37**	**5:00**	**5:11**	**5:20**
4:51	**4:55**	**5:02**	**5:26**	**5:37**	**5:47**
5:21	**5:25**	**5:32**	**5:56**	**6:07**	**6:17**

Gray-shaded times are approximate; trip may run earlier than scheduled. / *Los tiempos sombreados en gris son aproximados; los viajes pueden operar más temprano de lo que se indica.*

Route 110 does not operate on weekends or on the following holidays and observed holidays:
La ruta 110 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados: **New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas**





20 Monday through Friday • *lunes a viernes*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	4:56a	5:06a	5:08a	5:21a	5:32a	5:39a	5:47a	5:53a	6:01a
—	5:26	5:36	5:38	5:52	6:03	6:10	6:18	6:25	6:34
—	5:41	5:51	5:53	6:08	—	—	—	—	—
5:53a	5:56	6:06	6:08	6:23	6:34	6:42	6:50	6:57	7:07
6:08	6:11	6:21	6:23	6:38	—	—	—	—	—
6:23	6:26	6:36	6:38	6:54	7:06	7:14	7:23	7:30	7:40
6:38	6:41	6:51	6:53	7:09	—	—	—	—	—
6:53	6:56	7:06	7:08	7:24	7:36	7:44	7:53	8:00	8:10
7:08	7:11	7:21	7:23	7:39	—	—	—	—	—
7:23	7:26	7:36	7:38	7:54	8:06	8:14	8:23	8:30	8:41
7:38	7:41	7:51	7:53	8:09	—	—	—	—	—
7:53	7:56	8:06	8:08	8:24	8:36	8:44	8:53	9:00	9:11
8:08	8:11	8:21	8:23	8:39	—	—	—	—	—
8:23	8:26	8:36	8:38	8:54	9:06	9:14	9:23	9:30	9:41
8:38	8:41	8:51	8:53	9:08	—	—	—	—	—
8:53	8:56	9:06	9:08	9:23	9:34	9:42	9:51	9:58	10:08
9:23	9:26	9:36	9:38	9:53	10:04	10:12	10:21	10:28	10:38
9:53	9:56	10:06	10:08	10:23	10:34	10:42	10:51	10:58	11:08
10:23	10:26	10:36	10:38	10:53	11:04	11:12	11:21	11:28	11:38
10:53	10:56	11:06	11:08	11:23	11:34	11:42	11:51	11:58	**12:08p**
11:23	11:26	11:36	11:38	11:53	**12:04p**	**12:12p**	**12:21p**	**12:28p**	**12:38**
11:53	11:56	**12:07p**	**12:09p**	**12:24p**	**12:35**	**12:44**	**12:53**	**1:00**	**1:10**
12:23p	**12:26p**	**12:37**	**12:39**	**12:54**	**1:05**	**1:14**	**1:23**	**1:30**	**1:40**
12:53	**12:56**	**1:07**	**1:09**	**1:24**	**1:35**	**1:44**	**1:53**	**2:00**	**2:10**
1:23	**1:26**	**1:37**	**1:39**	**1:55**	**2:06**	**2:15**	**2:25**	**2:32**	**2:42**
1:53	**1:56**	**2:07**	**2:09**	**2:26**	**2:37**	**2:46**	**2:56**	**3:03**	**3:13**
2:23	**2:26**	**2:37**	**2:39**	**2:56**	**3:08**	**3:18**	**3:29**	**3:36**	**3:47**
2:52	**2:55**	**3:06**	**3:08**	**3:25**	**3:37**	**3:47**	**3:58**	**4:05**	**4:16**
3:07	**3:10**	**3:21**	**3:23**	**3:40**	—	—	—	—	—
3:22	**3:25**	**3:36**	**3:38**	**3:55**	**4:08**	**4:18**	**4:29**	**4:36**	**4:47**
3:37	**3:40**	**3:51**	**3:53**	**4:10**	—	—	—	—	—
3:52	**3:55**	**4:06**	**4:08**	**4:25**	**4:38**	**4:48**	**4:59**	**5:06**	**5:17**
4:07	**4:10**	**4:21**	**4:23**	**4:40**	—	—	—	—	—
4:22	**4:25**	**4:36**	**4:38**	**4:55**	**5:08**	**5:18**	**5:29**	**5:36**	**5:47**
4:37	**4:40**	**4:51**	**4:53**	**5:10**	—	—	—	—	—
4:52	**4:55**	**5:06**	**5:08**	**5:25**	**5:38**	**5:48**	**5:59**	**6:06**	**6:17**
5:07	**5:10**	**5:21**	**5:23**	**5:40**	—	—	—	—	—
5:23	**5:26**	**5:37**	**5:39**	**5:55**	**6:08**	**6:18**	**6:28**	**6:35**	**6:45**
5:53	**5:56**	**6:07**	**6:09**	**6:24**	**6:36**	**6:45**	**6:54**	**7:01**	**7:10**
6:23	**6:26**	**6:37**	**6:39**	**6:54**	**7:06**	**7:15**	**7:24**	**7:31**	**7:40**
6:54	**6:57**	**7:07**	**7:09**	**7:23**	**7:35**	**7:44**	**7:53**	**8:00**	**8:08**
7:24	**7:27**	**7:37**	**7:39**	**7:53**	**8:04**	**8:12**	**8:20**	**8:26**	**8:34**
7:54	**7:57**	**8:07**	**8:09**	**8:23**	**8:34**	**8:42**	**8:50**	**8:56**	**9:04**
8:54	**8:57**	**9:07**	**9:09**	**9:23**	—	—	—	—	—

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
5:13a	5:21a	5:27a	5:36a	5:45a	5:55a	6:08a	6:10a	6:21a
5:42	5:50	5:57	6:06	6:15	6:25	6:38	6:40	6:51
—	—	—	—	—	6:54	7:08	7:10	7:21
6:19	6:28	6:35	6:46	6:58	7:09	7:23	7:25	7:36
—	—	—	—	—	7:24	7:38	7:40	7:52
6:47	6:57	7:04	7:16	7:28	7:39	7:53	7:55	8:07
—	—	—	—	—	7:54	8:08	8:10	8:22
7:17	7:27	7:34	7:46	7:58	8:09	8:23	8:25	8:37
—	—	—	—	—	8:25	8:39	8:41	8:53
7:49	7:59	8:06	8:17	8:29	8:40	8:54	8:56	9:08
8:19	8:29	8:36	8:47	8:59	9:10	9:24	9:26	9:37
8:50	9:00	9:07	9:17	9:28	9:39	9:53	9:55	10:06
9:24	9:33	9:40	9:49	9:58	10:09	10:23	10:25	10:36
9:54	10:03	10:10	10:19	10:28	10:39	10:53	10:55	11:06
10:24	10:33	10:40	10:49	10:58	11:09	11:23	11:25	11:36
10:50	10:59	11:07	11:16	11:26	11:38	11:53	11:55	**12:06p**
11:20	11:29	11:37	11:46	11:56	**12:08p**	**12:23p**	**12:25p**	**12:36**
11:50	11:59	**12:07p**	**12:16p**	**12:26p**	**12:38**	**12:53**	**12:55**	**1:06**
12:20p	**12:29p**	**12:37**	**12:46**	**12:56**	**1:08**	**1:23**	**1:25**	**1:36**
12:50	**12:59**	**1:07**	**1:16**	**1:26**	**1:38**	**1:53**	**1:55**	**2:06**
1:20	**1:29**	**1:37**	**1:46**	**1:56**	**2:08**	**2:23**	**2:25**	**2:36**
—	—	—	—	—	**2:23**	**2:38**	**2:40**	**2:51**
1:50	**1:59**	**2:07**	**2:16**	**2:26**	**2:38**	**2:53**	**2:55**	**3:06**
—	—	—	—	—	**2:52**	**3:07**	**3:09**	**3:20**
2:15	**2:25**	**2:33**	**2:43**	**2:53**	**3:05**	**3:21**	**3:23**	**3:36**
—	—	—	—	—	**3:20**	**3:36**	**3:38**	**3:51**
2:42	**2:52**	**3:00**	**3:10**	**3:21**	**3:34**	**3:51**	**3:53**	**4:07**
—	—	—	—	—	**3:49**	**4:06**	**4:08**	**4:22**
3:09	**3:20**	**3:28**	**3:38**	**3:49**	**4:02**	**4:21**	**4:23**	**4:37**
—	—	—	—	—	**4:17**	**4:36**	**4:38**	**4:52**
3:39	**3:50**	**3:58**	**4:08**	**4:19**	**4:32**	**4:51**	**4:53**	**5:07**
—	—	—	—	—	**4:47**	**5:06**	**5:08**	**5:22**
4:09	**4:20**	**4:28**	**4:38**	**4:49**	**5:02**	**5:21**	**5:23**	**5:37**
—	—	—	—	—	**5:17**	**5:36**	**5:38**	**5:52**
4:39	**4:50**	**4:58**	**5:08**	**5:19**	**5:32**	**5:51**	**5:53**	**6:07**
—	—	—	—	—	**5:47**	**6:06**	**6:08**	**6:22**
5:12	**5:23**	**5:31**	**5:41**	**5:51**	**6:03**	**6:20**	**6:22**	**6:36**
5:44	**5:55**	**6:03**	**6:13**	**6:23**	**6:35**	**6:50**	**6:52**	**7:05**
6:18	**6:28**	**6:36**	**6:45**	**6:55**	**7:06**	**7:20**	**7:22**	**7:34**
6:51	**7:00**	**7:07**	**7:16**	**7:25**	**7:36**	**7:50**	**7:52**	**8:04**
7:22	**7:31**	**7:38**	**7:47**	**7:56**	**8:06**	**8:20**	**8:22**	**8:33**
8:11	**8:19**	**8:25**	**8:33**	**8:42**	**8:52**	**9:05**	**9:07**	**9:18**
9:12	**9:20**	**9:26**	**9:34**	**9:43**	**9:53**	**10:05**	**10:07**	**10:17**

20 Saturday • *sábado*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:11	6:21	6:23	6:36	6:47	—	—	—	—
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:09a	7:12	7:22	7:24	7:38	7:49	—	—	—	—
7:39	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:09	8:12	8:22	8:24	8:38	8:49	—	—	—	—
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:09	9:12	9:22	9:24	9:38	9:49	—	—	—	—
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:08	10:11	10:22	10:24	10:38	10:49	—	—	—	—
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:08	11:11	11:22	11:24	11:38	11:49	—	—	—	—
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:08p	**12:11p**	**12:22p**	**12:24p**	**12:39**	**12:50**	—	—	—	—
12:38	**12:41**	**12:52**	**12:54**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:08	**1:11**	**1:22**	**1:24**	**1:39**	**1:50**	—	—	—	—
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:08	**2:11**	**2:22**	**2:24**	**2:39**	**2:50**	—	—	—	—
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:08	**3:11**	**3:22**	**3:24**	**3:39**	**3:50**	—	—	—	—
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:08	**4:11**	**4:22**	**4:24**	**4:39**	**4:50**	—	—	—	—
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:08	**5:11**	**5:22**	**5:24**	**5:39**	**5:50**	—	—	—	—
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:09	**6:12**	**6:23**	**6:25**	**6:39**	**6:50**	—	—	—	—
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
—	—	—	—	6:12a	6:23a	6:35a	6:37a	6:47a
6:12a	6:20a	6:26a	6:34a	6:42	6:53	7:05	7:07	7:17
—	—	—	—	7:12	7:23	7:35	7:37	7:47
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
—	—	—	—	8:12	8:23	8:35	8:37	8:48
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
—	—	—	—	9:12	9:23	9:35	9:37	9:48
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
—	—	—	—	10:12	10:23	10:35	10:37	10:48
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
—	—	—	—	11:12	11:23	11:36	11:38	11:50
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
—	—	—	—	**12:12p**	**12:23p**	**12:36**	**12:38**	**12:50**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42**	**12:53**	**1:06**	**1:08**	**1:20**
—	—	—	—	**1:12**	**1:23**	**1:36**	**1:38**	**1:50**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
—	—	—	—	**2:12**	**2:23**	**2:36**	**2:38**	**2:50**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
—	—	—	—	**3:12**	**3:23**	**3:36**	**3:38**	**3:50**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
—	—	—	—	**4:12**	**4:23**	**4:36**	**4:38**	**4:50**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
—	—	—	—	**5:12**	**5:23**	**5:36**	**5:38**	**5:50**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
—	—	—	—	**6:11**	**6:22**	**6:35**	**6:37**	**6:48**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
—	—	—	—	**7:11**	**7:22**	**7:35**	**7:37**	**7:48**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**
8:13	**8:21**	**8:27**	**8:35**	**8:43**	**8:53**	**9:05**	**9:07**	**9:17**

20 Sunday • *domingo*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:39a	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:38p	**12:41p**	**12:52p**	**12:54p**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
6:12a	6:20a	6:26a	6:34a	6:42a	6:53a	7:05a	7:07a	7:17a
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42p**	**12:53p**	**1:06**	**1:08**	**1:20**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective September 3, 2023

Rapid 235

Bus Route

Escondido Transit Center ↔ Downtown San Diego

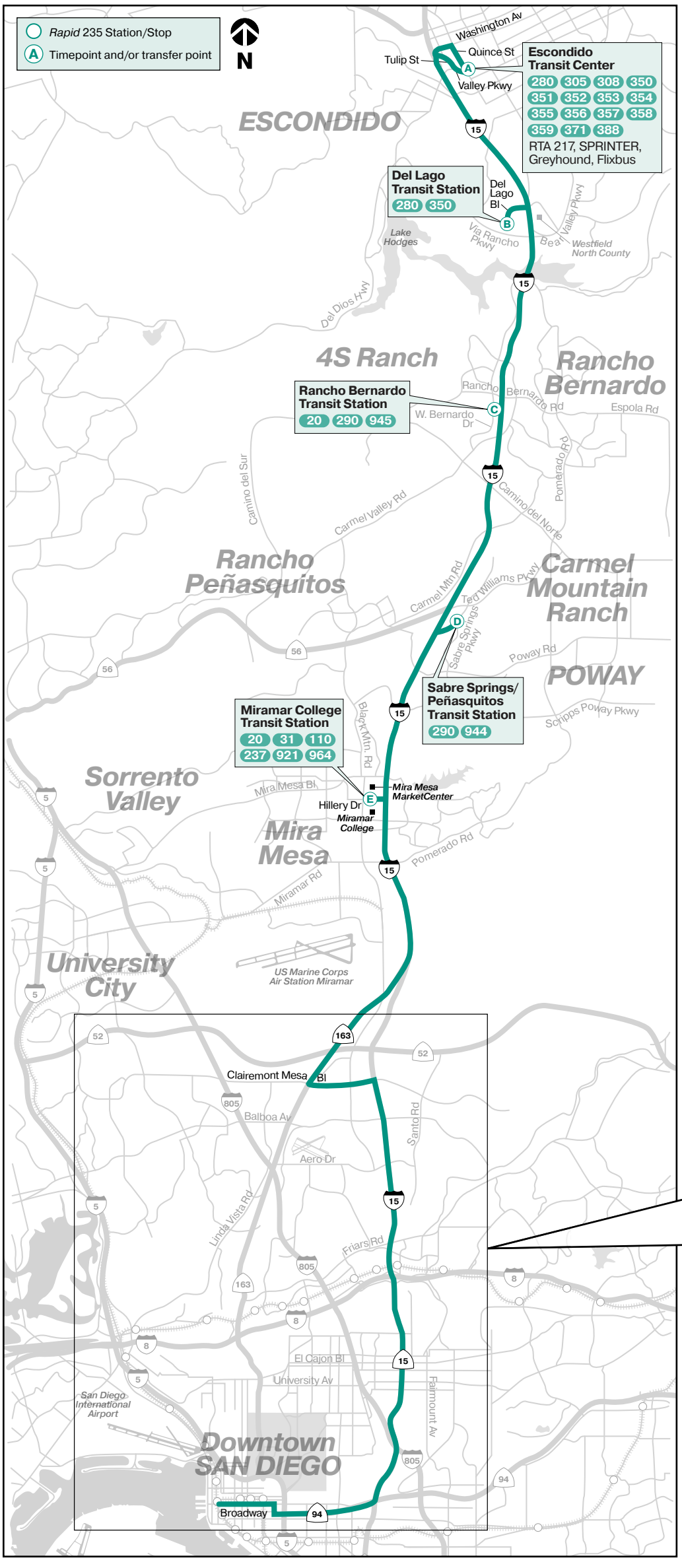
via I-15

Destinations
- Boulevard Transit Plaza
- City Heights Transit Plaza
- Del Lago Transit Station
- Kearny Mesa Transit Center
- Miramar College Transit Station
- Rancho Bernardo Transit Station
- Sabre Springs/Peñasquitos Transit Station

Trolley Connections
- City College
- America Plaza
- Santa Fe Depot

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS



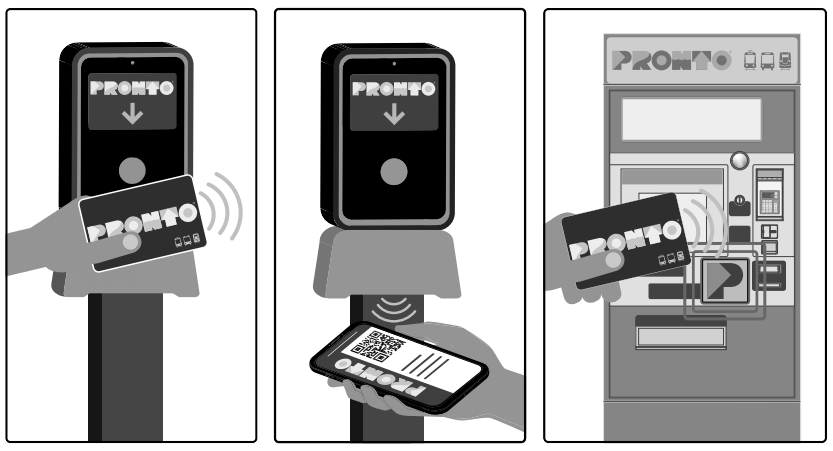
Downtown Boarding Locations

Towards Escondido:
Kettner Bl. at Santa Fe Depot
Broadway at 1st Av. (Courthouses)
Broadway at 5th Av. (Horton Plaza)
Broadway at Park Bl. (City College T.C.)

Towards Santa Fe Depot:
Broadway at Park Bl. (City College T.C.)
Broadway at 4th Av. (Horton Plaza)
Broadway at Union St. (Courthouses)

PRONTO

TAP or SCAN -
Required Before Boarding
TOCA o ESCANEA -
Se requiere antes de abordar



619-595-5636
RidePRONTO.com

Southern Area Detail

235 Monday through Friday • *lunes a viernes*

Escondido Transit Center → Downtown San Diego

A	B	C	D	E	F	G	H	I	J
Escondido Transit Center **DEPART**	Del Lago Transit Station	Rancho Bernardo Transit Station	Sabre Springs/ Peñasquitos T.S.	Miramar College Transit Station	Kearny Mesa Transit Center	Boulevard Transit Plaza (El Cajon Bl.)	City Heights Transit Plaza (Univ. Av.)	City College Transit Center (Broadway)	America Plaza Trolley Station **ARRIVE**
—	—	—	—	—	4:58a	5:08a	5:10a	5:19a	5:26a
—	—	—	—	—	5:13	5:23	5:25	5:34	5:41
—	—	—	—	5:18a	5:28	5:38	5:40	5:49	5:56
5:00a	5:09a	5:17a	5:24a	5:33	5:43	5:53	5:55	6:04	6:11
—	—	—	—	5:48	5:59	6:09	6:11	6:21	6:28
5:33	5:42	5:50	5:57	6:06	6:17	6:27	6:29	6:40	6:47
—	—	—	—	6:21	6:32	6:43	6:45	6:57	7:05
6:03	6:12	6:20	6:27	6:36	6:47	6:58	7:00	7:12	7:20
6:18	6:27	6:35	6:42	6:51	7:02	7:13	7:15	7:27	7:35
6:30	6:40	6:48	6:55	7:04	7:15	7:26	7:28	7:41	7:50
6:46	6:56	7:04	7:11	7:20	7:31	7:42	7:44	7:57	8:06
7:01	7:11	7:19	7:26	7:35	7:46	7:57	7:59	8:12	8:21
7:16	7:26	7:34	7:41	7:50	8:01	8:12	8:14	8:27	8:36
7:31	7:41	7:49	7:56	8:05	8:16	8:27	8:29	8:42	8:51
7:46	7:56	8:04	8:11	8:20	8:31	8:42	8:44	8:57	9:06
8:01	8:11	8:19	8:26	8:35	8:46	8:57	8:59	9:11	9:20
8:17	8:26	8:34	8:41	8:50	9:01	9:12	9:14	9:26	9:35
8:33	8:42	8:50	8:57	9:06	9:17	9:28	9:30	9:41	9:50
8:48	8:57	9:05	9:12	9:21	9:32	9:43	9:45	9:56	10:05
9:03	9:12	9:20	9:27	9:36	9:47	9:58	10:00	10:11	10:20
9:18	9:27	9:35	9:42	9:51	10:02	10:13	10:15	10:26	10:35
9:33	9:42	9:50	9:57	10:06	10:17	10:28	10:30	10:41	10:50
9:48	9:57	10:05	10:12	10:21	10:32	10:43	10:45	10:56	11:05
10:03	10:12	10:20	10:27	10:36	10:47	10:58	11:00	11:11	11:20
10:18	10:27	10:35	10:42	10:51	11:02	11:13	11:15	11:26	11:35
10:32	10:41	10:49	10:56	11:05	11:16	11:28	11:30	11:41	11:50
10:47	10:56	11:04	11:11	11:20	11:31	11:43	11:45	11:56	**12:05p**
11:02	11:11	11:19	11:26	11:35	11:46	11:58	**12:00p**	**12:11p**	**12:20**
11:17	11:26	11:34	11:41	11:50	**12:01p**	**12:13p**	**12:15**	**12:26**	**12:35**
11:32	11:41	11:49	11:56	**12:05p**	**12:16**	**12:28**	**12:30**	**12:41**	**12:50**
11:47	11:56	**12:04p**	**12:11p**	**12:20**	**12:31**	**12:43**	**12:45**	**12:56**	**1:05**
12:02p	**12:11p**	**12:19**	**12:26**	**12:35**	**12:46**	**12:58**	**1:00**	**1:11**	**1:20**
12:17	**12:26**	**12:34**	**12:41**	**12:50**	**1:01**	**1:13**	**1:15**	**1:26**	**1:35**
12:32	**12:41**	**12:49**	**12:56**	**1:05**	**1:16**	**1:28**	**1:30**	**1:41**	**1:50**
12:47	**12:56**	**1:04**	**1:11**	**1:20**	**1:31**	**1:43**	**1:45**	**1:56**	**2:05**
1:02	**1:11**	**1:19**	**1:26**	**1:35**	**1:46**	**1:58**	**2:00**	**2:11**	**2:20**
1:17	**1:26**	**1:34**	**1:41**	**1:50**	**2:01**	**2:13**	**2:15**	**2:26**	**2:35**
1:32	**1:41**	**1:49**	**1:56**	**2:05**	**2:16**	**2:28**	**2:30**	**2:41**	**2:50**
1:47	**1:56**	**2:04**	**2:11**	**2:20**	**2:31**	**2:43**	**2:45**	**2:56**	**3:05**
2:02	**2:11**	**2:19**	**2:26**	**2:35**	**2:46**	**2:58**	**3:00**	**3:11**	**3:20**
2:16	**2:25**	**2:33**	**2:40**	**2:49**	**3:00**	**3:12**	**3:14**	**3:25**	**3:34**
2:29	**2:38**	**2:46**	**2:53**	**3:02**	**3:13**	**3:26**	**3:28**	**3:40**	**3:49**
2:42	**2:52**	**3:00**	**3:07**	**3:16**	**3:28**	**3:42**	**3:44**	**3:57**	**4:06**
2:55	**3:05**	**3:13**	**3:20**	**3:29**	**3:41**	**3:56**	**3:58**	**4:12**	**4:21**
3:10	**3:20**	**3:28**	**3:35**	**3:44**	**3:56**	**4:11**	**4:13**	**4:27**	**4:36**
3:23	**3:33**	**3:41**	**3:48**	**3:57**	**4:10**	**4:26**	**4:28**	**4:43**	**4:52**
3:39	**3:49**	**3:57**	**4:04**	**4:13**	**4:26**	**4:42**	**4:44**	**4:59**	**5:08**
3:54	**4:04**	**4:12**	**4:19**	**4:28**	**4:41**	**4:58**	**5:00**	**5:15**	**5:24**
4:09	**4:19**	**4:27**	**4:34**	**4:43**	**4:56**	**5:13**	**5:15**	**5:30**	**5:39**
4:24	**4:34**	**4:42**	**4:49**	**4:58**	**5:11**	**5:28**	**5:30**	**5:45**	**5:54**
4:39	**4:49**	**4:57**	**5:04**	**5:13**	**5:26**	**5:43**	**5:45**	**6:00**	**6:09**
4:54	**5:04**	**5:12**	**5:19**	**5:28**	**5:41**	**5:58**	**6:00**	**6:15**	**6:23**
5:10	**5:20**	**5:28**	**5:35**	**5:44**	**5:57**	**6:12**	**6:14**	**6:29**	**6:37**
5:27	**5:37**	**5:45**	**5:52**	**6:01**	**6:13**	**6:27**	**6:29**	**6:43**	**6:51**
5:46	**5:55**	**6:03**	**6:10**	**6:19**	**6:30**	**6:43**	**6:45**	**6:58**	**7:06**
6:02	**6:11**	**6:19**	**6:26**	**6:35**	**6:46**	**6:58**	**7:00**	**7:11**	**7:19**
6:17	**6:26**	**6:34**	**6:41**	**6:50**	**7:01**	**7:13**	**7:15**	**7:26**	**7:34**
6:32	**6:41**	**6:49**	**6:56**	**7:05**	**7:16**	**7:28**	**7:30**	**7:41**	**7:49**
6:47	**6:56**	**7:04**	**7:11**	**7:20**	**7:31**	**7:43**	**7:45**	**7:56**	**8:04**
7:06	**7:15**	**7:23**	**7:30**	**7:39**	**7:49**	**8:00**	**8:02**	**8:12**	**8:20**
7:36	**7:45**	**7:53**	**8:00**	**8:09**	**8:19**	**8:30**	**8:32**	**8:42**	**8:50**
8:05	**8:14**	**8:22**	**8:29**	**8:38**	**8:48**	**8:59**	**9:01**	**9:11**	**9:19**
8:35	**8:44**	**8:52**	**8:59**	**9:08**	**9:18**	**9:29**	**9:31**	**9:40**	**9:47**
9:05	**9:14**	**9:22**	**9:29**	**9:38**	**9:48**	**9:59**	**10:01**	**10:10**	**10:17**
9:35	**9:44**	**9:52**	**9:59**	**10:08**	**10:18**	**10:29**	**10:31**	**10:40**	**10:47**
10:05	**10:14**	**10:22**	**10:29**	**10:38**	**10:48**	**10:58**	**11:00**	**11:09**	**11:16**
10:35	**10:44**	**10:52**	**10:59**	**11:08**	**11:18**	**11:28**	**11:30**	**11:39**	**11:46**

Downtown San Diego → Escondido Transit Center

J	I	H	G	F	E	D	C	B	A
Santa Fe Depot Transit Center **DEPART**	City College Transit Center (Broadway)	City Heights Transit Plaza (Univ. Av.)	Boulevard Transit Plaza (El Cajon Bl.)	Kearny Mesa Transit Center	Miramar College Transit Station	Sabre Springs/ Peñasquitos T.S.	Rancho Bernardo Transit Station	Del Lago Transit Station	Escondido Transit Center **ARRIVE**
4:43a	4:50a	5:00a	5:02a	5:13a	5:24a	5:31a	5:39a	5:46a	5:57a
5:03	5:10	5:20	5:22	5:33	5:44	5:51	5:59	6:06	6:17
5:18	5:25	5:35	5:37	5:49	6:00	6:07	6:15	6:22	6:34
5:33	5:40	5:50	5:52	6:04	6:15	6:22	6:30	6:37	6:49
5:46	5:53	6:03	6:05	6:17	6:28	6:35	6:43	6:50	7:02
5:59	6:06	6:16	6:18	6:30	6:41	6:48	6:56	7:03	7:15
6:12	6:19	6:29	6:31	6:44	6:55	7:02	7:10	7:17	7:29
6:26	6:34	6:44	6:46	7:00	7:12	7:19	7:27	7:34	7:46
6:41	6:49	6:59	7:01	7:15	7:27	7:34	7:42	7:49	8:01
6:55	7:03	7:14	7:16	7:32	7:44	7:51	7:59	8:06	8:18
7:10	7:18	7:29	7:31	7:47	7:59	8:06	8:14	8:21	8:33
7:25	7:33	7:44	7:46	8:02	8:14	8:21	8:29	8:36	8:48
7:40	7:48	7:59	8:01	8:17	8:29	8:36	8:44	8:51	9:03
7:55	8:03	8:14	8:16	8:32	8:44	8:51	8:59	9:06	9:18
8:10	8:18	8:29	8:31	8:47	8:59	9:06	9:14	9:21	9:33
8:25	8:33	8:43	8:45	9:00	9:12	9:19	9:27	9:34	9:46
8:40	8:48	8:58	9:00	9:14	9:26	9:33	9:41	9:48	10:00
8:55	9:03	9:13	9:15	9:28	9:39	9:46	9:54	10:01	10:13
9:10	9:18	9:28	9:30	9:43	9:54	10:01	10:09	10:16	10:28
9:23	9:31	9:41	9:43	9:56	10:07	10:14	10:22	10:29	10:41
9:38	9:46	9:56	9:58	10:11	10:22	10:29	10:37	10:44	10:56
9:53	10:01	10:11	10:13	10:26	10:37	10:44	10:52	10:59	11:11
10:08	10:16	10:26	10:28	10:41	10:52	10:59	11:07	11:14	11:26
10:23	10:31	10:41	10:43	10:56	11:07	11:14	11:22	11:29	11:41
10:38	10:46	10:56	10:58	11:11	11:22	11:29	11:37	11:44	11:56
10:53	11:01	11:11	11:13	11:26	11:37	11:44	11:52	11:59	**12:11p**
11:08	11:16	11:26	11:28	11:41	11:52	11:59	**12:07p**	**12:14p**	**12:26**
11:23	11:31	11:41	11:43	11:56	**12:07p**	**12:14p**	**12:22**	**12:29**	**12:41**
11:38	11:46	11:56	11:58	**12:11p**	**12:22**	**12:29**	**12:37**	**12:44**	**12:56**
11:52	**12:01p**	**12:11p**	**12:13p**	**12:26**	**12:37**	**12:44**	**12:52**	**12:59**	**1:11**
12:07p	**12:16**	**12:26**	**12:28**	**12:41**	**12:52**	**12:59**	**1:07**	**1:14**	**1:26**
12:22	**12:31**	**12:41**	**12:43**	**12:56**	**1:07**	**1:14**	**1:22**	**1:29**	**1:41**
12:37	**12:46**	**12:56**	**12:58**	**1:11**	**1:22**	**1:29**	**1:37**	**1:44**	**1:56**
12:52	**1:01**	**1:11**	**1:13**	**1:26**	**1:37**	**1:44**	**1:52**	**1:59**	**2:11**
1:07	**1:16**	**1:26**	**1:28**	**1:41**	**1:52**	**1:59**	**2:07**	**2:14**	**2:26**
1:22	**1:31**	**1:41**	**1:43**	**1:56**	**2:07**	**2:14**	**2:22**	**2:29**	**2:41**
1:37	**1:46**	**1:56**	**1:58**	**2:11**	**2:22**	**2:29**	**2:37**	**2:44**	**2:56**
1:52	**2:01**	**2:11**	**2:13**	**2:26**	**2:37**	**2:44**	**2:52**	**2:59**	**3:11**
2:07	**2:16**	**2:26**	**2:28**	**2:41**	**2:53**	**3:00**	**3:08**	**3:15**	**3:28**
2:24	**2:33**	**2:43**	**2:45**	**2:58**	**3:10**	**3:17**	**3:25**	**3:32**	**3:45**
2:41	**2:50**	**3:00**	**3:02**	**3:15**	**3:27**	**3:34**	**3:42**	**3:49**	**4:02**
2:56	**3:05**	**3:16**	**3:18**	**3:31**	**3:43**	**3:50**	**3:58**	**4:05**	**4:18**
3:10	**3:19**	**3:31**	**3:33**	**3:46**	**3:59**	**4:06**	**4:14**	**4:21**	**4:34**
3:24	**3:34**	**3:47**	**3:49**	**4:02**	**4:15**	**4:22**	**4:30**	**4:37**	**4:50**
3:39	**3:49**	**4:02**	**4:04**	**4:17**	**4:30**	**4:37**	**4:45**	**4:52**	**5:05**
3:54	**4:04**	**4:17**	**4:19**	**4:32**	**4:45**	**4:52**	**5:00**	**5:07**	**5:20**
4:09	**4:19**	**4:32**	**4:34**	**4:47**	**5:00**	**5:07**	**5:15**	**5:22**	**5:35**
4:25	**4:35**	**4:48**	**4:50**	**5:03**	**5:16**	**5:23**	**5:31**	**5:38**	**5:51**
4:40	**4:50**	**5:03**	**5:05**	**5:17**	**5:30**	**5:37**	**5:45**	**5:52**	**6:05**
4:55	**5:05**	**5:18**	**5:20**	**5:32**	**5:45**	**5:52**	**6:00**	**6:07**	**6:20**
5:10	**5:20**	**5:33**	**5:35**	**5:47**	**6:00**	**6:07**	**6:15**	**6:22**	**6:35**
5:26	**5:35**	**5:48**	**5:50**	**6:02**	**6:15**	**6:22**	**6:30**	**6:37**	**6:50**
5:41	**5:50**	**6:02**	**6:04**	**6:16**	**6:28**	**6:35**	**6:43**	**6:50**	**7:02**
5:57	**6:05**	**6:16**	**6:18**	**6:30**	**6:42**	**6:49**	**6:57**	**7:04**	**7:15**
6:12	**6:20**	**6:31**	**6:33**	**6:45**	**6:57**	**7:04**	**7:12**	**7:19**	**7:30**
6:27	**6:35**	**6:46**	**6:48**	**7:00**	**7:12**	**7:19**	**7:27**	**7:34**	**7:45**
6:42	**6:50**	**7:01**	**7:03**	**7:15**	**7:27**	**7:34**	**7:42**	**7:49**	**8:00**
7:08	**7:16**	**7:26**	**7:28**	**7:39**	**7:50**	**7:57**	**8:05**	**8:12**	**8:23**
7:38	**7:46**	**7:56**	**7:58**	**8:09**	**8:20**	**8:27**	**8:35**	**8:42**	**8:53**
8:07	**8:15**	**8:25**	**8:27**	**8:38**	**8:49**	**8:56**	**9:04**	**9:11**	**9:22**
8:37	**8:45**	**8:55**	**8:57**	**9:08**	**9:19**	**9:26**	**9:34**	**9:41**	**9:52**
9:08	**9:15**	**9:25**	**9:27**	**9:38**	**9:49**	**9:56**	**10:04**	**10:11**	**10:21**
9:38	**9:45**	**9:55**	**9:57**	**10:08**	**10:19**	**10:26**	**10:34**	**10:41**	**10:51**
10:08	**10:15**	**10:25**	**10:27**	**10:38**	**10:49**	**10:56**	**11:04**	**11:11**	**11:21**
10:38	**10:45**	**10:55**	**10:57**	**11:08**	**11:19**	**11:26**	**11:34**	**11:41**	**11:51**

235 Saturday and Sunday • *sábado y domingo*

Escondido Transit Center → Downtown San Diego

A	B	C	D	E	F	G	H	I	J
Escondido Transit Center **DEPART**	Del Lago Transit Station	Rancho Bernardo Transit Station	Sabre Springs/ Peñasquitos T.S.	Miramar College Transit Station	Kearny Mesa Transit Center	Boulevard Transit Plaza (El Cajon Bl.)	City Heights Transit Plaza (Univ. Av.)	City College Transit Center (Broadway)	America Plaza Trolley Station **ARRIVE**
—	—	—	—	—	5:14a	5:23a	5:25a	5:34a	5:41a
5:01a	5:10a	5:18a	5:25a	5:34a	5:44	5:53	5:55	6:04	6:11
5:30	5:39	5:47	5:54	6:03	6:13	6:22	6:24	6:34	6:41
6:00	6:09	6:17	6:24	6:33	6:43	6:52	6:54	7:04	7:11
6:30	6:39	6:47	6:54	7:03	7:14	7:24	7:26	7:36	7:44
7:00	7:09	7:17	7:24	7:33	7:44	7:54	7:56	8:06	8:14
7:30	7:39	7:47	7:54	8:03	8:14	8:24	8:26	8:36	8:44
8:00	8:09	8:17	8:24	8:33	8:44	8:54	8:56	9:06	9:14
8:30	8:39	8:47	8:54	9:03	9:14	9:24	9:26	9:36	9:44
9:04	9:13	9:21	9:28	9:37	9:48	9:58	10:00	10:11	10:19
9:34	9:43	9:51	9:58	10:07	10:18	10:28	10:30	10:41	10:49
10:04	10:13	10:21	10:28	10:37	10:48	10:58	11:00	11:11	11:19
10:33	10:42	10:50	10:57	11:06	11:17	11:28	11:30	11:41	11:49
11:03	11:12	11:20	11:27	11:36	11:47	11:58	**12:00p**	**12:11p**	**12:19p**
11:33	11:42	11:50	11:57	**12:06p**	**12:17p**	**12:28p**	**12:30**	**12:41**	**12:49**
12:03p	**12:12p**	**12:20p**	**12:27p**	**12:36**	**12:47**	**12:58**	**1:00**	**1:11**	**1:19**
12:33	**12:42**	**12:50**	**12:57**	**1:06**	**1:17**	**1:28**	**1:30**	**1:41**	**1:49**
1:03	**1:12**	**1:20**	**1:27**	**1:36**	**1:47**	**1:58**	**2:00**	**2:11**	**2:19**
1:33	**1:42**	**1:50**	**1:57**	**2:06**	**2:17**	**2:28**	**2:30**	**2:41**	**2:49**
2:03	**2:12**	**2:20**	**2:27**	**2:36**	**2:47**	**2:58**	**3:00**	**3:11**	**3:19**
2:33	**2:42**	**2:50**	**2:57**	**3:06**	**3:17**	**3:28**	**3:30**	**3:41**	**3:49**
3:03	**3:12**	**3:20**	**3:27**	**3:36**	**3:47**	**3:58**	**4:00**	**4:11**	**4:19**
3:33	**3:42**	**3:50**	**3:57**	**4:06**	**4:17**	**4:28**	**4:30**	**4:41**	**4:49**
4:03	**4:12**	**4:20**	**4:27**	**4:36**	**4:47**	**4:58**	**5:00**	**5:11**	**5:19**
4:33	**4:42**	**4:50**	**4:57**	**5:06**	**5:17**	**5:28**	**5:30**	**5:41**	**5:49**
5:03	**5:12**	**5:20**	**5:27**	**5:36**	**5:47**	**5:58**	**6:00**	**6:11**	**6:19**
5:31	**5:40**	**5:48**	**5:55**	**6:04**	**6:15**	**6:25**	**6:27**	**6:37**	**6:45**
6:01	**6:10**	**6:18**	**6:25**	**6:34**	**6:45**	**6:55**	**6:57**	**7:07**	**7:15**
6:31	**6:40**	**6:48**	**6:55**	**7:04**	**7:15**	**7:25**	**7:27**	**7:37**	**7:45**
7:01	**7:10**	**7:18**	**7:25**	**7:34**	**7:44**	**7:54**	**7:56**	**8:06**	**8:14**
7:34	**7:43**	**7:51**	**7:58**	**8:07**	**8:17**	**8:27**	**8:29**	**8:39**	**8:47**
8:05	**8:14**	**8:22**	**8:29**	**8:38**	**8:48**	**8:58**	**9:00**	**9:10**	**9:18**
8:35	**8:44**	**8:52**	**8:59**	**9:08**	**9:18**	**9:28**	**9:30**	**9:40**	**9:47**
9:05	**9:14**	**9:22**	**9:29**	**9:38**	**9:48**	**9:57**	**9:59**	**10:09**	**10:16**
9:35	**9:44**	**9:52**	**9:59**	**10:08**	**10:18**	**10:27**	**10:29**	**10:39**	**10:46**
10:05	**10:14**	**10:22**	**10:29**	**10:38**	**10:48**	**10:57**	**10:59**	**11:09**	**11:16**

Downtown San Diego → Escondido Transit Center

J	I	H	G	F	E	D	C	B	A
Santa Fe Depot Transit Center **DEPART**	City College Transit Center (Broadway)	City Heights Transit Plaza (Univ. Av.)	Boulevard Transit Plaza (El Cajon Bl.)	Kearny Mesa Transit Center	Miramar College Transit Station	Sabre Springs/ Peñasquitos T.S.	Rancho Bernardo Transit Station	Del Lago Transit Station	Escondido Transit Center **ARRIVE**
4:43a	4:50a	5:00a	5:02a	5:13a	5:24a	5:31a	5:39a	5:46a	5:56a
5:10	5:17	5:27	5:29	5:40	5:51	5:58	6:06	6:13	6:23
5:40	5:47	5:57	5:59	6:10	6:21	6:28	6:36	6:43	6:53
6:10	6:17	6:27	6:29	6:40	6:51	6:58	7:06	7:13	7:23
6:40	6:47	6:57	6:59	7:10	7:21	7:28	7:36	7:43	7:53
7:10	7:18	7:28	7:30	7:41	7:52	7:59	8:07	8:14	8:24
7:40	7:48	7:58	8:00	8:11	8:22	8:29	8:37	8:44	8:54
8:09	8:17	8:27	8:29	8:40	8:51	8:58	9:06	9:13	9:23
8:39	8:47	8:57	8:59	9:11	9:22	9:29	9:37	9:44	9:55
9:10	9:18	9:28	9:30	9:42	9:53	10:00	10:08	10:15	10:26
9:40	9:48	9:58	10:00	10:12	10:23	10:30	10:38	10:45	10:56
10:11	10:19	10:29	10:31	10:43	10:54	11:01	11:09	11:16	11:27
10:41	10:49	10:59	11:01	11:13	11:24	11:31	11:39	11:46	11:57
11:11	11:19	11:29	11:31	11:43	11:54	**12:01p**	**12:09p**	**12:16p**	**12:27p**
11:41	11:49	11:59	**12:01p**	**12:13p**	**12:24p**	12:31	12:39	12:46	12:57
12:11p	**12:19p**	**12:29p**	12:31	12:43	12:54	1:01	1:09	1:16	1:27
12:41	**12:49**	**12:59**	1:01	1:13	1:24	1:31	1:39	1:46	1:57
1:11	**1:19**	**1:29**	1:31	1:43	1:54	2:01	2:09	2:16	2:27
1:41	**1:49**	**1:59**	2:01	2:13	2:24	2:31	2:39	2:46	2:57
2:11	**2:19**	**2:29**	2:31	2:43	2:54	3:01	3:09	3:16	3:28
2:41	**2:49**	**2:59**	3:01	3:13	3:24	3:31	3:39	3:46	3:58
3:09	**3:18**	**3:29**	3:31	3:43	3:54	4:01	4:09	4:16	4:28
3:39	**3:48**	**3:59**	4:01	4:13	4:24	4:31	4:39	4:46	4:58
4:09	**4:18**	**4:29**	4:31	4:43	4:54	5:01	5:09	5:16	5:28
4:40	**4:49**	**5:00**	5:02	5:13	5:24	5:31	5:39	5:46	5:58
5:10	**5:19**	**5:30**	5:32	5:43	5:54	6:01	6:09	6:16	6:28
5:39	**5:48**	**5:59**	6:01	6:12	6:23	6:30	6:38	6:45	6:57
6:10	**6:18**	**6:29**	6:31	6:42	6:53	7:00	7:08	7:15	7:27
6:41	**6:49**	**6:59**	7:01	7:12	7:23	7:30	7:38	7:45	7:56
7:09	**7:17**	**7:27**	7:29	7:40	7:51	7:58	8:06	8:13	8:24
7:39	**7:47**	**7:57**	7:59	8:10	8:21	8:28	8:36	8:43	8:54
8:07	**8:15**	**8:25**	8:27	8:38	8:49	8:56	9:04	9:11	9:22
8:38	**8:45**	**8:55**	8:57	9:08	9:19	9:26	9:34	9:41	9:52
9:08	**9:15**	**9:25**	9:27	9:38	9:49	9:56	10:04	10:11	10:21
9:38	**9:45**	**9:55**	9:57	10:08	10:19	10:26	10:34	10:41	10:51
10:08	**10:15**	**10:25**	10:27	10:38	10:49	10:56	11:04	11:11	11:21

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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MTS

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Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

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Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective June 30, 2023

Rapid

237

Bus Route

Mira Mesa ↔ UC San Diego

via Mira Mesa Boulevard

Destinations

- Miramar College Transit Station
- Mira Mesa High School
- Mira Mesa Mall
- Sorrento Mesa
- Westfield UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

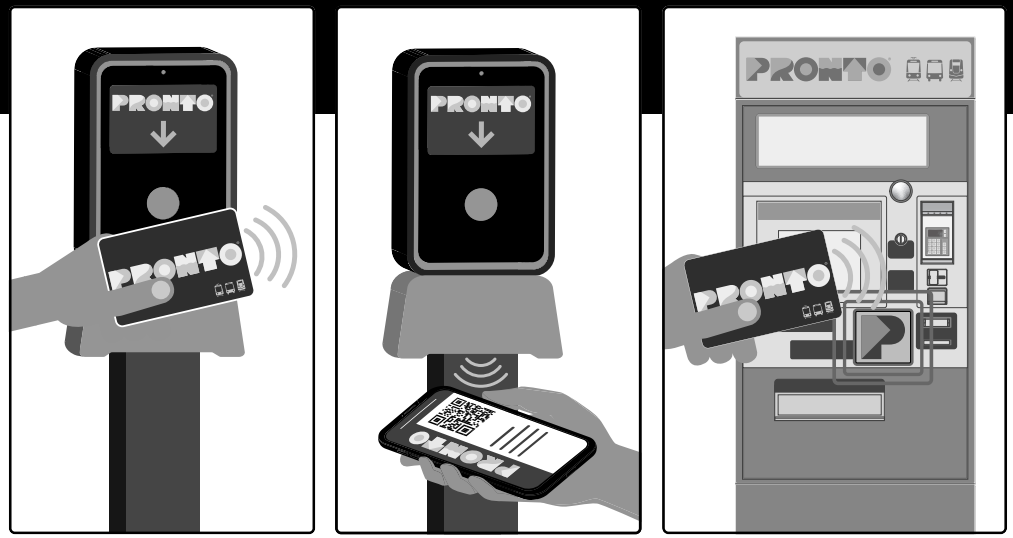
MTS

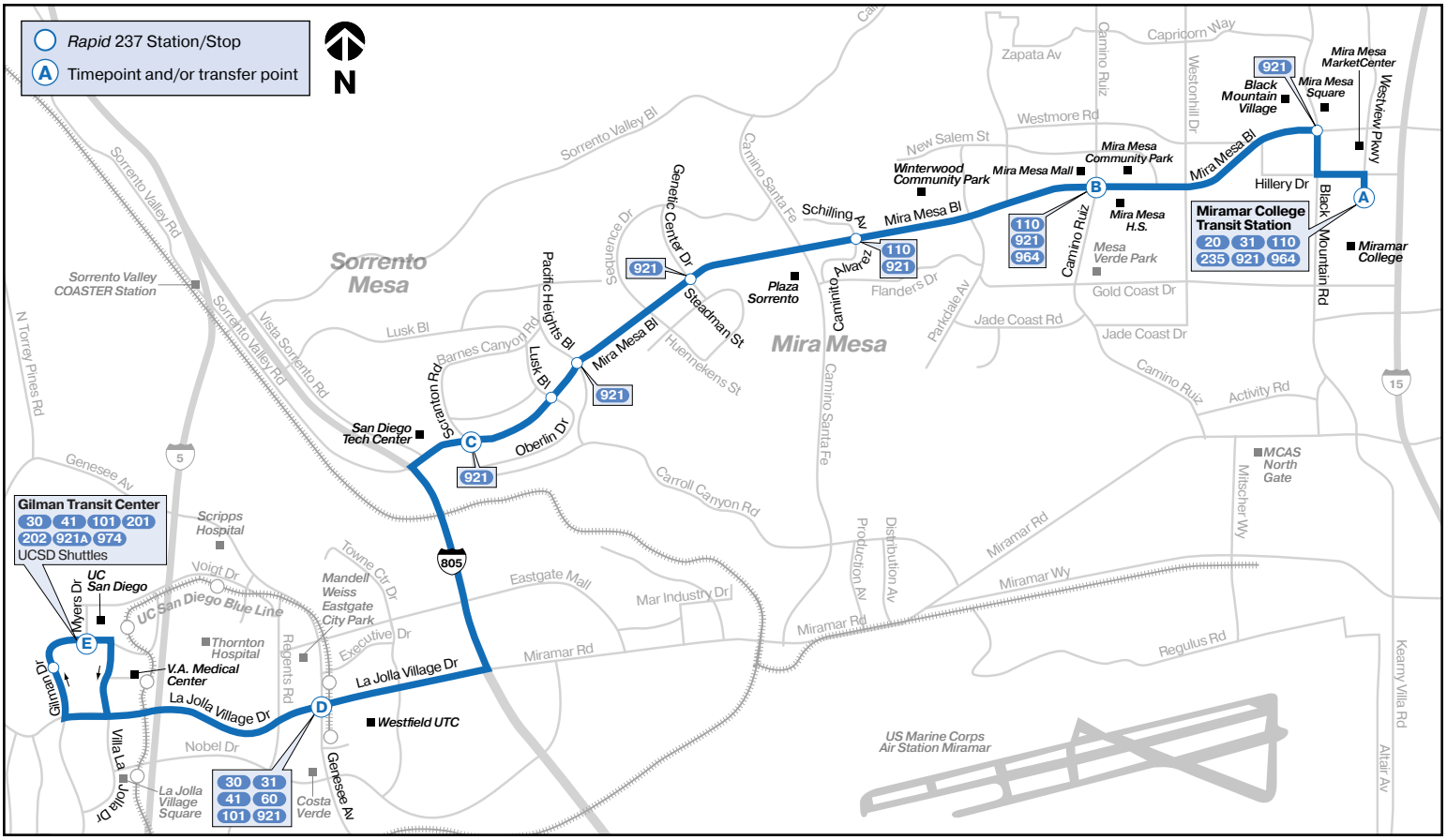
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TAP or SCAN - Required Before Boarding

TOCA o ESCANEA - Se requiere antes de abordar





237 Monday through Friday • *lunes a viernes*

Mira Mesa → UC San Diego

A Miramar College Transit Station **DEPART**	B Mira Mesa Bl. & Camino Ruiz	C Mira Mesa Bl. & Scranton Rd.	D La Jolla Village Dr. & Genesee Av.	E Gilman Transit Center (UCSD) **ARRIVE**
5:52a	5:59a	6:09a	6:17a	6:25a
6:22	6:29	6:39	6:47	6:55
6:36	6:43	6:53	7:01	7:09
6:51	6:59	7:10	7:18	7:27
7:04	7:13	7:25	7:34	7:43
7:20	7:29	7:41	7:50	7:59
7:35	7:44	7:56	8:05	8:14
7:50	7:59	8:12	8:21	8:31
8:05	8:14	8:27	8:36	8:46
8:20	8:29	8:42	8:51	9:01
8:35	8:44	8:57	9:06	9:16
8:50	8:59	9:12	9:21	9:31
9:06	9:15	9:28	9:37	9:47
9:21	9:30	9:43	9:52	10:02
9:51	9:59	10:11	10:20	10:29
2:48p	**2:55p**	**3:06p**	**3:17p**	**3:26p**
3:18	**3:25**	**3:36**	**3:47**	**3:56**
3:48	**3:56**	**4:08**	**4:19**	**4:28**
4:19	**4:27**	**4:39**	**4:51**	**5:01**
4:34	**4:42**	**4:54**	**5:06**	**5:16**
4:50	**4:58**	**5:10**	**5:22**	**5:32**
5:05	**5:13**	**5:25**	**5:37**	**5:47**
5:20	**5:28**	**5:40**	**5:52**	**6:02**
5:35	**5:43**	**5:55**	**6:07**	**6:17**
5:50	**5:57**	**6:09**	**6:19**	**6:29**
6:21	**6:28**	**6:39**	**6:48**	**6:57**
6:47	**6:54**	**7:04**	**7:12**	**7:21**
7:17	**7:24**	**7:34**	**7:42**	**7:51**

UC San Diego → Mira Mesa

E Gilman Transit Center (UCSD) **DEPART**	D La Jolla Village Dr. & Genesee Av.	C Mira Mesa Bl. & Scranton Rd.	B Mira Mesa Bl. & Camino Ruiz	A Miramar College Transit Station **ARRIVE**
6:03a	6:09a	6:13a	6:24a	6:31a
6:36	6:43	6:47	6:58	7:06
7:05	7:12	7:17	7:29	7:38
7:24	7:31	7:36	7:48	7:57
7:39	7:46	7:51	8:03	8:12
7:54	8:01	8:06	8:18	8:27
8:13	8:20	8:25	8:37	8:46
8:28	8:35	8:40	8:52	9:01
8:43	8:50	8:55	9:07	9:16
9:09	9:16	9:21	9:33	9:42
2:01p	**2:10p**	**2:15p**	**2:27p**	**2:37p**
2:31	**2:40**	**2:45**	**2:57**	**3:07**
3:01	**3:10**	**3:15**	**3:27**	**3:37**
3:29	**3:38**	**3:43**	**3:55**	**4:05**
3:44	**3:53**	**3:58**	**4:10**	**4:20**
3:57	**4:06**	**4:11**	**4:25**	**4:35**
4:12	**4:21**	**4:26**	**4:42**	**4:53**
4:27	**4:36**	**4:41**	**4:57**	**5:08**
4:40	**4:49**	**4:54**	**5:11**	**5:23**
4:54	**5:03**	**5:08**	**5:25**	**5:38**
5:12	**5:21**	**5:26**	**5:43**	**5:56**
5:27	**5:36**	**5:41**	**5:58**	**6:11**
5:44	**5:52**	**5:57**	**6:14**	**6:26**
5:57	**6:05**	**6:10**	**6:27**	**6:39**
6:16	**6:24**	**6:29**	**6:44**	**6:54**
6:33	**6:41**	**6:46**	**6:59**	**7:08**
6:55	**7:03**	**7:08**	**7:21**	**7:30**
7:31	**7:39**	**7:43**	**7:55**	**8:03**
8:01	**8:09**	**8:13**	**8:25**	**8:33**

Route 237 does not operate on weekends or on the following holidays and observed holidays / *La ruta 237 no ofrece servicio durante el fin de semana o durante los siguientes días festivos y feriados observados*

New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

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Effective August 31, 2025

31

UTC Transit Center ↔ Mira Mesa
via Miramar Road

921

UTC Transit Center ↔ Mira Mesa
via Mira Mesa Boulevard

Bus Routes

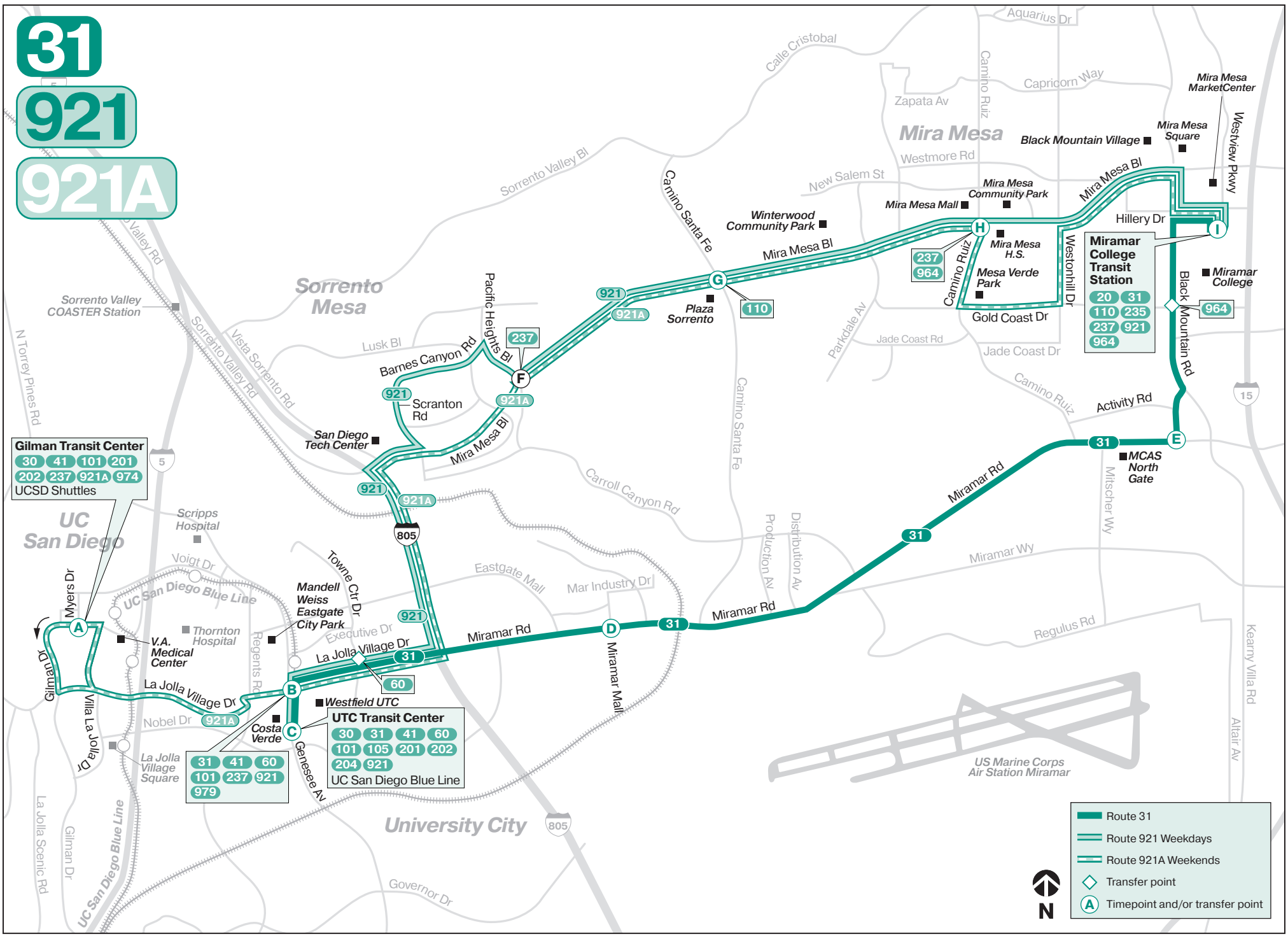
Destinations
- MCAS Miramar - North Gate (31)
- Miramar College Transit Station
- Mira Mesa Marketcenter
- Westfield UTC
- Mira Mesa High School / Mall / Marketcenter
- Sorrento Mesa (921)
- VA Medical Center (921A)
- UC San Diego (921A)

Trolley Connections
- UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS

31
921
921A



31 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C UTC Transit Center **DEPART**	D Miramar Rd. & Miramar Mall	E Black Mountain Rd. & Miramar Rd.	I Miramar College Transit Station **ARRIVE**
6:02a	6:08a	6:18a	6:25a
6:32	6:39	6:50	6:58
7:02	7:09	7:21	7:30
7:32	7:39	7:51	8:00
8:02	8:09	8:20	8:28
8:32	8:39	8:50	8:58
2:30p	**2:38p**	**2:51p**	**2:59p**
3:03	**3:11**	**3:24**	**3:32**
3:33	**3:41**	**3:55**	**4:04**
4:01	**4:09**	**4:23**	**4:32**
4:31	**4:39**	**4:53**	**5:02**
5:03	**5:11**	**5:25**	**5:34**
5:33	**5:41**	**5:55**	**6:04**
6:03	**6:10**	**6:23**	**6:31**
6:33	**6:40**	**6:51**	**6:58**

Miramar College Transit Station → UTC Transit Center

I Miramar College Transit Station **DEPART**	E Black Mountain Rd. & Miramar Rd.	D Miramar Rd. & Miramar Mall	C UTC Transit Center **ARRIVE**
5:39a	5:45a	5:58a	6:05a
6:09	6:15	6:29	6:37
6:39	6:46	7:00	7:09
7:08	7:15	7:29	7:38
7:38	7:46	8:00	8:10
8:08	8:16	8:30	8:40
8:38	8:46	9:00	9:10
9:09	9:17	9:31	9:41
2:41p	**2:48p**	**3:00p**	**3:10p**
3:11	**3:18**	**3:30**	**3:40**
3:41	**3:48**	**4:00**	**4:10**
4:11	**4:18**	**4:31**	**4:42**
4:41	**4:48**	**5:01**	**5:12**
5:11	**5:18**	**5:30**	**5:40**
5:49	**5:56**	**6:07**	**6:16**

Route 31 does not operate on weekends or on the following holidays and observed holidays / *La ruta 31 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

921 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C	F	G	H	I
UTC Transit Center **DEPART**	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Camino Ruiz	Miramar College Transit Station **ARRIVE**
6:17a	6:33a	6:38a	6:44a	6:53a
6:41	6:57	7:02	7:08	7:17
7:11	7:27	7:32	7:38	7:47
7:35	7:53	7:59	8:06	8:15
8:05	8:23	8:29	8:36	8:45
8:35	8:53	8:59	9:06	9:15
9:08	9:24	9:29	9:36	9:45
9:38	9:54	9:59	10:06	10:15
10:08	10:24	10:29	10:36	10:45
10:38	10:54	10:59	11:06	11:15
11:08	11:24	11:29	11:36	11:45
11:38	11:54	11:59	**12:06p**	**12:15p**
12:08p	**12:24p**	**12:29p**	**12:36**	**12:45**
12:38	**12:54**	**12:59**	**1:06**	**1:15**
1:06	**1:23**	**1:28**	**1:35**	**1:45**
1:36	**1:53**	**1:58**	**2:05**	**2:15**
2:11	**2:28**	**2:33**	**2:40**	**2:50**
2:41	**2:58**	**3:03**	**3:10**	**3:20**
3:11	**3:28**	**3:33**	**3:40**	**3:50**
3:39	**3:56**	**4:02**	**4:09**	**4:20**
4:06	**4:24**	**4:30**	**4:38**	**4:50**
4:36	**4:54**	**5:00**	**5:08**	**5:20**
5:06	**5:24**	**5:30**	**5:38**	**5:50**
5:31	**5:49**	**5:55**	**6:03**	**6:15**
6:04	**6:21**	**6:26**	**6:34**	**6:45**
6:36	**6:53**	**6:58**	**7:05**	**7:15**
7:07	**7:24**	**7:29**	**7:36**	**7:46**

Miramar College Transit Station → UTC Transit Center

I	H	G	F	C
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Pacific Heights Bl. & Mira Mesa Bl.	UTC Transit Center **ARRIVE**
5:35a	5:44a	5:50a	5:55a	6:12a
6:09	6:18	6:24	6:29	6:47
6:39	6:48	6:54	6:59	7:16
7:09	7:19	7:26	7:31	7:50
7:39	7:49	7:56	8:01	8:20
8:09	8:19	8:26	8:31	8:50
8:39	8:49	8:56	9:01	9:20
9:09	9:19	9:26	9:31	9:50
9:44	9:53	9:59	10:04	10:22
10:14	10:23	10:29	10:34	10:52
10:44	10:53	10:59	11:04	11:22
11:14	11:23	11:29	11:34	11:52
11:44	11:53	11:59	**12:04p**	**12:22p**
12:14p	**12:23p**	**12:29p**	**12:34**	**12:52**
12:44	**12:53**	**12:59**	**1:04**	**1:22**
1:14	**1:23**	**1:29**	**1:34**	**1:52**
1:44	**1:53**	**1:59**	**2:04**	**2:22**
2:14	**2:23**	**2:29**	**2:34**	**2:54**
2:39	**2:48**	**2:54**	**2:59**	**3:21**
3:06	**3:15**	**3:21**	**3:26**	**3:48**
3:36	**3:45**	**3:51**	**3:56**	**4:18**
4:07	**4:16**	**4:22**	**4:27**	**4:49**
4:37	**4:46**	**4:52**	**4:57**	**5:19**
5:07	**5:16**	**5:22**	**5:27**	**5:49**
5:37	**5:46**	**5:52**	**5:57**	**6:19**
6:07	**6:16**	**6:22**	**6:27**	**6:46**
6:35	**6:44**	**6:50**	**6:55**	**7:14**

921A Saturday and Sunday • *sábado y domingo*

Gilman Transit Center → Miramar College Transit Station

A	B	F	G	H	I
Gilman Transit Center (UCSD) **DEPART**	La Jolla Village Dr. & Genesee Av.	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Camino Ruiz & Mira Mesa Bl.	Miramar College Transit Station **ARRIVE**
A 7:19a	7:29a	7:37a	7:40a	7:45a	7:57a
A 8:19	8:29	8:37	8:40	8:45	8:57
A 9:19	9:30	9:39	9:42	9:48	10:01
A 10:19	10:30	10:39	10:42	10:48	11:01
A 11:19	11:30	11:39	11:42	11:48	**12:01p**
A **12:19p**	**12:30p**	**12:39p**	**12:42p**	**12:48p**	**1:01**
A **1:19**	**1:30**	**1:39**	**1:42**	**1:48**	**2:01**
A **2:19**	**2:30**	**2:39**	**2:42**	**2:48**	**3:01**
A **3:19**	**3:30**	**3:39**	**3:42**	**3:48**	**4:01**
A **4:19**	**4:30**	**4:39**	**4:42**	**4:48**	**5:01**
A **5:18**	**5:29**	**5:38**	**5:41**	**5:47**	**6:00**
A **6:18**	**6:29**	**6:38**	**6:41**	**6:47**	**7:00**
A **7:22**	**7:32**	**7:40**	**7:43**	**7:48**	**8:00**

Miramar College Transit Station → Gilman Transit Center

I	H	G	F	B	A
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Pacific Heights Bl.	La Jolla Village Dr. & Genesee Av.	Gilman Transit Center (UCSD) **ARRIVE**
A 7:27a	7:39a	7:44a	7:47a	7:55a	8:04a
A 8:27	8:39	8:44	8:47	8:55	9:04
A 9:28	9:42	9:47	9:50	9:59	10:09
A 10:28	10:42	10:47	10:50	10:59	11:09
A 11:28	11:42	11:47	11:50	11:59	**12:09p**
A **12:28p**	**12:42p**	**12:47p**	**12:50p**	**12:59p**	**1:09**
A **1:28**	**1:42**	**1:47**	**1:50**	**1:59**	**2:09**
A **2:28**	**2:42**	**2:47**	**2:50**	**2:59**	**3:09**
A **3:28**	**3:42**	**3:47**	**3:50**	**3:59**	**4:09**
A **4:27**	**4:41**	**4:46**	**4:49**	**4:58**	**5:08**
A **5:27**	**5:41**	**5:46**	**5:49**	**5:58**	**6:08**
A **6:27**	**6:41**	**6:46**	**6:49**	**6:58**	**7:08**

A = Saturday/Sunday trips have an alternate routing in Mira Mesa & Sorrento Mesa. See map. / *Viajes de sábado/domingo tienen ruta alternativa en Mira Mesa y Sorrento Mesa. Vea el mapa.*

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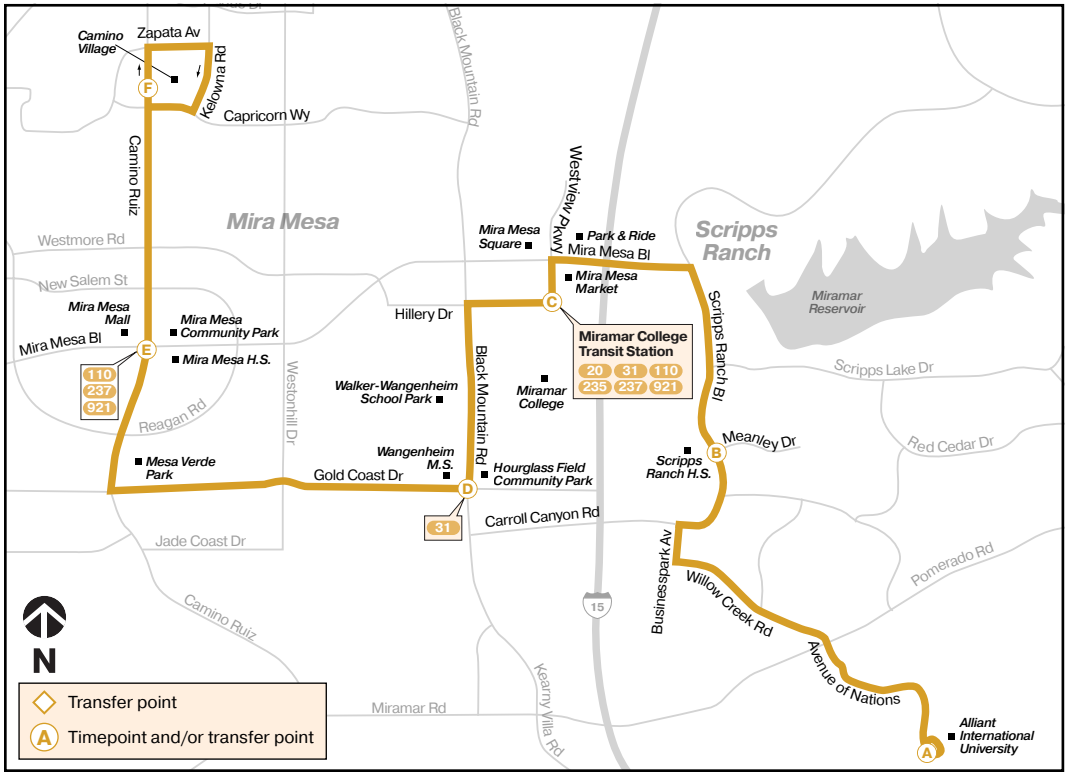
Camino Ruiz & Capricorn Way ↔ Alliant International University

via Miramar College Transit Station

Destinations

- Alliant International University
- Camino Village
- Hourglass Field Community Park
- Miramar College
- Mira Mesa High School
- Mira Mesa Mall
- Mira Mesa Market
- Miramar College Transit Station

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Alliant International University → Camino Ruiz & Capricorn Way

A	B	C	D	E	F
Alliant International University **DEPART**	Scripps Ranch Bl. & Meanley Dr.	Miramar College Transit Station	Black Mountain Rd. & Gold Coast Dr.	Camino Ruiz & Mira Mesa Bl.	Camino Ruiz & Capricorn Way **ARRIVE**
6:04a	6:09a	6:18a	6:22a	6:30a	6:33a
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7:03	7:09	7:18	7:23	7:31	7:34
7:33	7:39	7:48	7:53	8:01	8:04
8:03	8:09	8:18	8:23	8:31	8:34
8:33	8:39	8:48	8:53	9:01	9:04
9:33	9:39	9:48	9:53	10:01	10:04
10:30	10:36	10:45	10:50	10:58	11:01
11:30	11:36	11:45	11:50	11:59	**12:03p**
12:30p	**12:36p**	**12:45p**	**12:50p**	**12:59p**	**1:03**
1:42	**1:48**	**1:59**	**2:04**	**2:13**	**2:17**
2:42	**2:48**	**2:59**	**3:04**	**3:13**	**3:17**
3:18	**3:24**	**3:35**	**3:40**	**3:49**	**3:53**
3:48	**3:54**	**4:05**	**4:10**	**4:19**	**4:23**
4:18	**4:24**	**4:35**	**4:40**	**4:49**	**4:53**
4:48	**4:54**	**5:05**	**5:10**	**5:19**	**5:23**
5:18	**5:24**	**5:35**	**5:40**	**5:49**	**5:53**
5:48	**5:54**	**6:05**	**6:10**	**6:19**	**6:23**
6:21	**6:27**	**6:38**	**6:43**	**6:52**	**6:56**
6:53	**6:59**	**7:08**	**7:13**	**7:22**	**7:26**
—	—	**7:38**	**7:43**	**7:52**	**7:56**
—	—	**8:13**	**8:17**	**8:25**	**8:28**

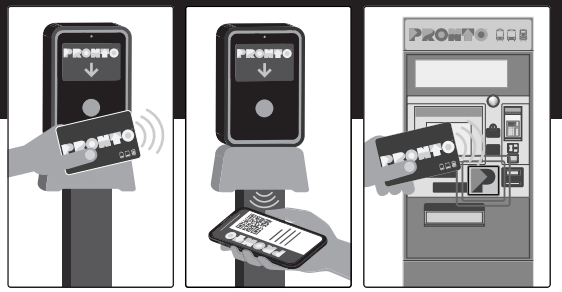
Camino Ruiz & Capricorn Way → Alliant International University

F	E	D	C	B	A
Camino Ruiz & Capricorn Way **DEPART**	Camino Ruiz & Mira Mesa Bl.	Black Mountain Rd. & Gold Coast Dr.	Miramar College Transit Station	Scripps Ranch Bl. & Meanley Dr.	Alliant International University **ARRIVE**
5:35a	5:42a	5:49a	5:55a	6:00a	6:07a
6:19	6:26	6:33	6:39	6:44	6:51
6:47	6:55	7:03	7:09	7:15	7:23
7:17	7:25	7:33	7:39	7:45	7:53
7:47	7:55	8:03	8:09	8:15	8:23
8:17	8:25	8:33	8:39	8:45	8:53
8:47	8:55	9:02	9:08	9:14	9:21
9:20	9:28	9:35	9:41	9:47	9:54
10:20	10:28	10:35	10:41	10:47	10:54
11:20	11:28	11:35	11:41	11:47	11:54
12:20p	**12:28p**	**12:36p**	**12:42p**	**12:48p**	**12:56p**
1:20	**1:28**	**1:36**	**1:42**	**1:48**	**1:56**
2:32	**2:40**	**2:48**	**2:54**	**3:00**	**3:08**
3:32	**3:40**	**3:48**	**3:54**	**4:00**	**4:08**
4:02	**4:10**	**4:18**	**4:24**	**4:30**	**4:38**
4:32	**4:40**	**4:48**	**4:54**	**5:00**	**5:08**
5:03	**5:11**	**5:19**	**5:25**	**5:31**	**5:39**
5:33	**5:41**	**5:49**	**5:55**	**6:01**	**6:09**
6:03	**6:11**	**6:19**	**6:25**	**6:31**	**6:39**
6:33	**6:40**	**6:47**	**6:53**	—	—
7:03	**7:10**	**7:17**	**7:23**	—	—
7:38	**7:45**	**7:52**	**7:58**	—	—

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END OF APPENDICES

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Appendix I. Local Mobility Analysis

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LOCAL MOBILITY ANALYSIS

MIRAMAR COLLEGE MASTER PLAN

San Diego, California
June 24, 2026

LLG Ref. 3-24-4051

Prepared by:
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Senior Transportation Planner
&
Zahira Chayeb
Transportation Engineer II

Under the Supervision of:
John Boarman, P. E.
Principal

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LOCAL MOBILITY ANALYSIS

MIRAMAR COLLEGE MASTER PLAN

City of San Diego, California
June 24, 2026

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has prepared this Local Mobility Analysis (LMA) for the Miramar College Master Plan (Project). The college is located within the Mira Mesa community of the City of San Diego, which is located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the Interstate 805 (I-805) and Interstate 15 (I-15) corridors.

The following sections are included in this report:

- Project Description
- Study Objectives
- Analysis Approach & Methodology
- Existing Conditions Description
- Analysis of Existing Conditions
- Trip Generation, Distribution, and Assignment
- Analysis of Buildout Year 2045 Conditions
- Conclusions

For the purposes of this report, a 20-year "horizon" analysis was conducted, and therefore, a Year 2045 analysis is included. An assessment to determine the impacts on Vehicle Miles Traveled (VMT) for the Project is provided under separate cover.

2.0 PROJECT DESCRIPTION

2.1 Campus Location

Miramar College campus, which is approximately 114 acres in size, is located at 10440 Black Mountain Road, within the City of San Diego, CA. The campus is located in the northern sector of the District in the neighborhood of Mira Mesa, located in the north central portion of the City of San Diego, 16 miles north of downtown San Diego, between the Interstate 805 (I-805) and Interstate 15 (I-15) corridors. The project site is on Assessor's Parcel Numbers 3181200300 and 3181200400.

The campus is surrounded by a mix of residential, commercial, educational, and open space uses: Multi-family residential and commercial uses are to the north; institutional facilities (Walker Elementary School and Wangenheim Middle School) are to the west; multi-family residential uses are to the south; and multi-family residential uses are to the east, with the Interstate 15 corridor and Scripps Ranch High School farther east.

2.1.1 *Existing Land Uses*

The project site is currently occupied by various academic and job training buildings, athletic and recreational facilities, open space, and internal campus roads and parking lots. Campus buildings are on the eastern portion of the project site, with academic buildings in the northeastern portion and job training buildings (i.e., police academy and aviation building) in the southeastern portion. The academic buildings surround Compass Point, a circular courtyard, creating a campus core. The northwestern portion of the project site is reserved as a 12-acre vernal pool preserve with unpaved interpretive trails. Various athletic and recreational facilities are in the southwestern portion of the project site, including Hourglass Field (baseball/softball fields), an aquatic center, tennis courts, a gymnasium, sand volleyball courts, and a community park.

Parking lots are scattered throughout the campus: Surface parking lots (Lot 1 and Lot 2) are on the western side of the campus, a surface parking lot is in the northeastern portion of the campus (Lot 3), a parking garage (PS-3) is in the northeastern portion of the campus along North Campus Drive, a parking garage (PS-4) is in the southeastern portion of campus along South Campus Drive, and a surface parking lot is east of Hourglass Field (Lot A).

Internal campus streets include Miramar College Driveway, North Campus Drive, and South Campus Drive. A transit station that serves multiple bus lines is in the northeastern portion of the project site and accessible via Hillery Drive.

2.1.2 *Campus Access*

The existing campus has a total of six (6) access points as listed below:

- Main entry at Westview Parkway & Hillery Drive
- Hillery Drive & Miramar College Transit Station Driveway (Buses Only)
- N Campus Drive & Hillery Drive
- Miramar College Driveway & Black Mountain Road

- Black Mountain Road & Lot #2 Driveway
- Gold Coast Drive & S Campus Drive

Figure 2–1 shows the Campus Vicinity Map, ***Figure 2–2*** shows a more detailed Project Area Map.

2.2 Project Background

The San Diego Community College District (District) is a community college district serving the City of San Diego (City) in central San Diego County (County). The District includes three credit colleges (San Diego City College, Miramar College, and Miramar College) and the state's only free-standing noncredit college (San Diego College of Continuing Education). The District is the third largest public community college district in California, serving approximately 90,000 students annually across these colleges.

2.2.1 *Miramar College Facilities Path to 2035 Master Plan*

The Miramar College Facilities Path to 2035 (Master Plan, MP), dated April 18, 2022, details proposed campus-wide improvements at Miramar College to replace aging buildings and enhance campus connectivity. The designs and concepts presented in the Master Plan are conceptual and intended to serve as a framework for the future detailed design of campus improvements as funding becomes available.

2.2.2 *Measure HH Funding*

The District is undertaking a comprehensive improvement and building program to make upgrades and repairs to existing buildings and construct new facilities to improve the safety and educational experience of students, faculty, and staff at several campuses in accordance with Measure HH. In 2024, voters passed the $3.5 billion Measure HH Bond Program to provide funding to upgrade, repair, and renovate classrooms and facilities at Miramar, San Diego City, Mesa, and Continuing Education Colleges.

2.2.3 *Campus Population Growth*

As of Fall 2025, 6,101 students were enrolled in on-site courses at Miramar College. An additional 11,057 students were enrolled in either off-site programs (i.e., high school courses receiving District credits) or online courses. Students participating in off-site and online courses register online; some students may visit the campus one to two times per semester, typically prior to on-campus courses starting and outside of peak on-campus hours. As these students do not regularly attend the physical Miramar College campus or use campus facilities, their presence does not contribute to campus-wide operational environmental impacts and the analysis in this study focuses on the on-campus student population.

Current enrollment and historic growth rates from 1973 through 2023 indicate enrollment growth of approximately 1.4 percent per year on average. For purposes of this study, a 1.5 percent annual growth rate has been selected to ensure that the environmental analysis accounts for reasonably foreseeable changes in enrollment and campus development over the next 20 years. This growth rate reflects the potential for attracting and accommodating additional students in on-campus courses through

implementation of planned improvements to campus facilities, academic offerings, and student services, while also providing a conservative approach for environmental analysis and ensuring that the PEIR addresses potential impacts associated with continued on-campus enrollment growth. Based on applying an annual growth rate of 1.5 percent growth to the on-campus population per year, 8,217 on-campus students are anticipated to attend Miramar College in 2045, an increase of 2,116 on-campus students compared to baseline (Fall 2025) conditions.

Employee growth is anticipated to maintain the current student-to-staff ratio, which reflects established operational standards for delivering academic programs and student services at Miramar College.

2.3 Project Components

The Project consists of the demolition, construction, and renovation of existing campus buildings and facilities on the 114-acre campus. The project would involve the demolition of approximately 49,398 square feet of existing buildings, construction of approximately 253,500 square feet of new buildings, and renovation of approximately 141,210 square feet of existing buildings. The project would also provide various outdoor space enhancements, athletic field improvements, and pedestrian and roadway renovations. It is assumed that as facilities are constructed and modernized, more students would be attracted to on-campus programs. Based on historic growth across District campuses, it is assumed the campus would experience a 1.5 percent growth of on-campus students per year.

The intention of the Master Plan is to develop a campus that works holistically and seamlessly to achieve campus goals. The exact architectural programming and design of each project would be developed during project implementation in coordination with user groups. Below describes projects from the Master Plan that are anticipated to be constructed in the near term as they have identified funding and are in the design process. No specific timing or phasing is identified for the remaining campus-wide improvements and long-term projects. These improvements would be designed and implemented as funding is available and program needs are reprioritized.

Campus-Wide Improvements

The Master Plan identifies campus-wide projects that would improve circulation and utilities across campus consistent with the vision of the Master Plan. These improvements would be incorporated into specific projects or as holistic campus improvement programs.

Related to utilities, replacement or upgrade of existing utility infrastructure would occur on an as-needed basis, primarily with construction of new facilities. As part of the campus goal to become more sustainable, ongoing improvements would occur for water demand efficiency, waste management, power generation, telecommunication infrastructure, and outdoor lighting.

Pedestrian improvements across campus may include establishing a hierarchy for pedestrian circulation, including promenades and connecters using material palettes that are distinct from other circulation spaces. This may include additional pedestrian pole lights, benches, consistent hardscape

materials, and uniform landscaping and tree species. New campus signage, art, and wayfinding signage would also be incorporated across the campus.

Interior renovations to accommodate programming adjustments, enhance technology, upgrade mechanical systems, or improve building accessibility could occur throughout existing campus buildings. Minor construction would also occur to repurpose existing exterior areas for outdoor classrooms, study areas, or leisure seating.

Near-Term Improvements

Performing Arts Center, English and Gallery Building

A new 115,000-gsf Performing Arts Center, English and Gallery Building complex is proposed in the northwest portion of campus. The existing eastern portion of Lot 2, consisting of 210 parking spaces, would be demolished to make way for the proposed building. The project would also include the removal of approximately 30 trees. The new two-story building complex, which would have a height of approximately 75 feet, would host English, Art and Music classes along with a new approximately 300-seat Performing Arts Center. The Performing Arts Center would allow for a new academic program, as the existing campus does not include a designated space for performing arts. The Performing Arts Center would provide space for the Humanities programs and would serve the surrounding community through hosting events, gallery shows, and performances that are open to guests outside of Miramar College. The placement of the building on the western perimeter of campus would serve as a welcoming gateway to the campus.

Early Education Center Building

The proposed Early Education Center Building would include the demolition of the existing 6,876-gsf Child Development Center F-2 Building and removal of the drive aisle (and associated 16 parking spaces) located east of the existing building. The project would also include the relocation of existing underground utilities and removal of approximately 10 trees. The proposed one-story Early Education Center Building would be approximately 18,500 gsf with a maximum height of approximately 40 feet. The building would include administrative uses, adult learning classrooms, and early education classrooms for infants, toddlers, and pre-school children. A secure outdoor play yard and open space would be located on the western portion of the site. A new drop-off area would be constructed to the south of the proposed building.

Long-Term Projects

Public Safety A-2 Building Modernization

Due to the aging condition of the Public Safety Police Academy A-2 Building, the project would include modernization and renovation of the existing building, totaling approximately 32,210-gsf. Building renovations would include new energy-efficient lighting; ceilings; paint; flooring; casework; stairwells; and heating, ventilation, and air conditioning systems, as well as required accessibility and structural upgrades.

Heavy Duty Diesel Technology C-1 Building
A new 30,000-gsf Heavy Duty Diesel Technology (HDDT) Building is proposed to replace the existing 16,581-gsf Heavy Duty Diesel Technology C-1 Building on the east side of campus. While a HDDT is a building that currently exists on campus, it is an aging building that no longer serves the needs of the program or advancing technology.

Welcome and Multicultural Center Building
A new 45,000-gsf Welcome and Multicultural Center Building is proposed to replace the existing 25,941-gsf English I Building in the center of campus and the demolition of the existing 10,080-gsf Student Resource and Welcome Center K-2 Building. While the Welcome Center is a building that currently exists on campus and would be relocated to this more centralized proposed space, a Multicultural Center is not currently provided on campus and would provide students and visitors with a welcoming and inclusive environment near the main western entrance of campus.

Parking Structure with Athletic Facilities
A new 300-space parking structure is proposed to the east of Hourglass Field. To provide space for the proposed parking structure, the existing Lot A (91 parking spaces) and tennis courts (1.35 acres) would be demolished. Due to the proximity to the existing Athletics buildings and Hourglass Field the proposed parking structure would include a synthetic grass athletic field and tennis courts on the roof of the structure to add usable square footage to the existing athletics program. The proposed parking structure would serve as a connector piece, linking together the change in topography between the north and south ends of the structure.

Automotive and Science S-2 through S-6 Building Modernization
Due to the aging condition of Automotive and Science S-2 through S-6 Buildings, the project would include modernization and renovation of the five existing science and automotive buildings, totaling approximately 109,000 gsf. Building renovations would include new energy-efficient lighting; ceilings; paint; flooring; casework; stairwells; and heating, ventilation, and air conditioning systems, as well as required accessibility and structural upgrades.

Athletics Building and Courts
A new 25,000-gsf Athletics Building is proposed in the southern portion of campus. The existing basketball court and approximately 1.30-acres of the eastern portion of Hourglass Field (south of the existing gym) would be demolished for this project. The proposed Athletics Building would include a gym, locker rooms, classrooms, and training rooms and provide flexible spaces to meet the evolving needs of the athletics program. A new outdoor basketball court and pickleball court would be constructed to support the proposed Athletics Building.

Hourglass Field Modernization
Modernization improvements are proposed for Hourglass Field located in the southwestern portion of campus. Improvements would include natural turf replacement and leveling of the turf to eliminate current trip hazards due to the existing conditions of the field. Improvements would also include

upgrading the current field lighting with more energy efficient lighting. It is anticipated that no changes would occur related to the use or hours of operation of the fields compared to existing conditions.

STEM Lab and Student Health Center Building
A new 20,000-gsf STEM Lab and Student Health Center Building is proposed in the northern portion of campus. The existing Lot 3, consisting of 89 parking spaces, would be demolished for this project. The proposed STEM Lab and Student Health Center Building would contain mathematics, biological, exercise, and physical sciences labs that would be located near the existing Science S-5 and S-6 Buildings, allowing for a direct connection between the science functions on campus. The proposed building would also include a Student Health Center that would include physical health and mental health services for the campus community.

North Campus Drive Street Parking
North Campus Drive is located on the eastern boundary of campus and connects to Hillery Drive, located to the north of campus. Improvements to North Campus Drive would include the widening of the existing two-lane street to include approximately 20 additional parking spaces along the eastern side of the road.

Vernal Pool Community Trail Extension
The northwestern portion of campus includes a 12-acre gated vernal pool preserve with interpretive trails. The existing trails consist of boardwalks and decomposed granite pathways with informational signage throughout. Improvements in this area would include an extension to the existing trail that would include elevated walks and additional viewing platforms.

2.3.1 *Increase in On Campus Students*

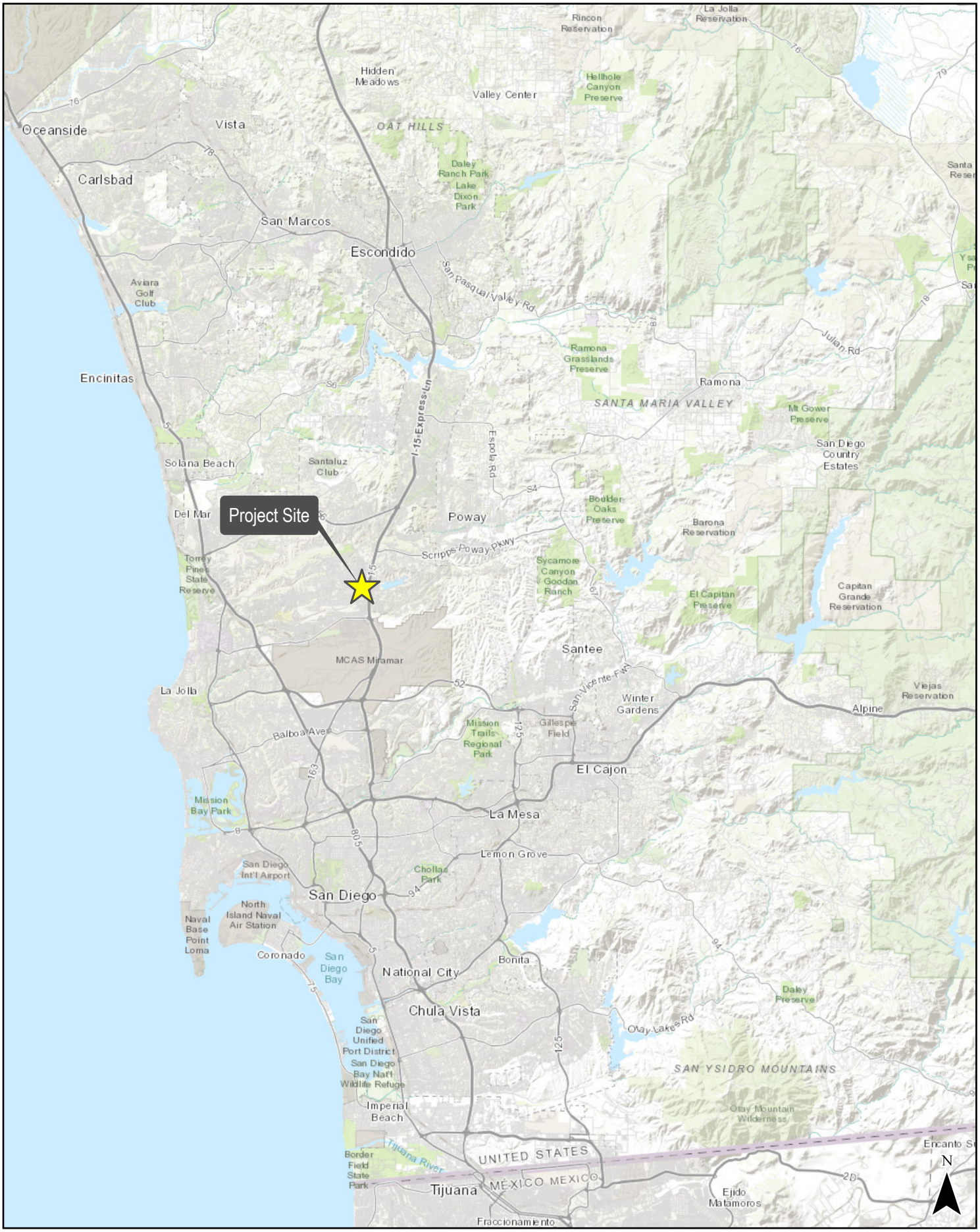
This study specifically analyzes the Project's effects to the local circulation system associated with the proposed increase in on-campus students outlined in *Section 2.2.3*, as opposed to specific infrastructure or planning changes that are proposed as a part of the Project. This is consistent with guidance provided by the Institute of Traffic Engineers (ITE) in their *Trip Generation Manual* (12th Edition, 2025), which notes that acreage, floor space, staff, and parking accommodations can vary widely with the populations served and the social and economic characteristics of the area and therefore the number of students may be the most reliable independent variable on which to establish a trip generation estimate. As noted in *Section 2.2.3*, an increase of 2,116 on-campus students compared to baseline (Fall 2025) conditions is expected over 20 years as part of the Project.

2.3.2 *Miramar College Driveway Modification*

Miramar College Driveway is a main access point onto campus. Currently, the road stretches from Black Mountain Road on the western boundary of campus and proceeds in a southeastern direction through the center of campus to the existing Parking Structure PS-4, located on the eastern boundary of campus. The project would include the addition of a traffic circle on Miramar College Driveway at the existing intersection between Lot 1 and Lot 2, and the closing of Miramar College Driveway to the east of this proposed traffic circle. With the proposed traffic circle, cars would either be routed north to Lot 2 and the proposed Performing Arts Center, English and Gallery Building, or routed south

to Lot 1. While the eastern portion of Miramar College Driveway would be closed to the public, it would remain as a controlled vehicle accessway, utilized as a fire lane and for maintenance access. By closing this eastern portion of Miramar College Driveway, pedestrian connections would be strengthened between the north and south ends of campus. This controlled vehicle access through campus would allow for a pedestrian-friendly walkable campus.

These proposed circulation modifications are intended to enhance internal campus connectivity and are not anticipated to result in a change to existing regional or site-access traffic patterns. Because the primary access points to the campus remain consistent, these refinements do not affect the assumed trip distribution, project-related traffic volumes, or the underlying assumptions of the transportation analysis.



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SanGIS, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS

Figure 2-1
Vicinity Map



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Figure 2-2

Project Area Map

MIRAMAR COLLEGE MASTER PLAN

3.0 STUDY OBJECTIVES, ANALYSIS APPROACH AND METHODOLOGY

This section discusses the LMA study objectives and the analysis approach and methodology used in the preparation of the study.

3.1 Study Objectives

The District serves as Lead Agency for the Project and District actions within its campuses are not subject to the land use or circulation plans of the local jurisdiction (i.e., the City of San Diego). However, the District does not have adopted guidance for the analysis of transportation system impacts. As the roadways surrounding Miramar College that would be traveled by additional vehicle trips coming to the campus are planned and maintained by the City, the City's Transportation Study Manual (TSM) was determined to be relevant guidance for the analysis of the potential Project effects on local roadway infrastructure.

This LMA has been prepared to identify the transportation impacts of proposed projects and to determine the need for any improvements to the adjacent and nearby road system to achieve acceptable mobility for vehicles, bicyclists, pedestrians, and transit. This LMA evaluates any off-site infrastructure improvements in the Project vicinity that may be triggered with the development of the Project, as well as analyzes site access and circulation, and evaluates the local multi-modal network available to serve the project.

3.2 Analysis Approach and Methodology

Level of Service (LOS) is the term used to denote the different vehicular operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis considering factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

3.3 Intersections

Signalized intersections were analyzed under weekday 7:00-9:00 AM and 4:00-6:00 PM peak hour conditions. It should be noted that while community colleges do have unique midday and evening peaks compared to K-12 schools, the *ITE Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use* table for the Junior/Community College land use included in the *ITE Trip Generation Manual*, 12th Edition, validates the standard 7:00–9:00 AM and 4:00–6:00 PM windows as the periods of peak trip generation. Average vehicle delay was determined utilizing the methodology found in Chapter 18 of the *2016 Highway Capacity Manual (HCM 7th Edition),* with the assistance of the *Synchro* (version 12) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. ***Table 3–1*** shows the signalized intersection delay categorized for each LOS.

Unsignalized intersections were analyzed under weekday 7:00-9:00 AM and 4:00-6:00 PM peak hour conditions. Average vehicle delay and LOS were determined based upon the procedures found in Chapters 19 and 20 of the *HCM 7,* with the assistance of the *Synchro* (version 12) computer software. *Table 3–1* shows the unsignalized intersection delay categorized for each LOS.

3.3.1 *Identifying Off-Site Improvements*

The following section outlines when off-site improvements should be considered based on the results of intersection operations analysis described above. The consideration of improvements is dependent on whether a project site is located within a ½ mile path of travel of a Major Transit Stop.

Per the TSM, a Major Transit Stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

It should be noted that the Campus is located within a ½ mile path of travel to a Major Transit Stop because every area of the Miramar College campus is within ½ mile of the Miramar College Transit Station.

Signalized Intersections

Based on the TSM, signal timing improvements/signal modifications should be considered if the following criteria is met for study intersections:

- Within ½ mile path of travel of a Major Transit Stop: if the project causes an intersection to degrade to LOS F, or if the project adds traffic to a signal already operating at LOS F.
- Outside of a ½ mile path of travel a Major Transit Stop: if the project causes an intersection to degrade to LOS E or F, or if the project adds traffic to a signal already operating at LOS E or F.

All-Way Stop Controlled Intersections

Based on the TSM, an intersection control evaluation should be prepared if the project causes an all-way stop-controlled intersection to degrade as follows:

- Within a 1/2-mile path of travel of a Major Transit Stop: If the project causes an all-way stop-controlled intersection located to degrade to LOS F, or if the project adds traffic to an all-way stop-controlled intersection already operating at LOS F.
- Outside of a 1/2-mile path of travel of a Major Transit Stop: If the project causes an all-way stop-controlled intersection to degrade to LOS E or F, or if the project adds traffic to an all-way stop-controlled intersection already operating at LOS E or F.

TABLE 3–1
INTERSECTION LOS & DELAY RANGES

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	**Unsignalized Intersections**
A	≤ 10.0	≤ 10.0
B	10.1 to 20.0	10.1 to 15.0
C	20.1 to 35.0	15.1 to 25.0
D	35.1 to 55.0	25.1 to 35.0
E	55.1 to 80.0	35.1 to 50.0
F	≥ 80.1	≥ 50.1

Source: Highway Capacity Manual

4.0 EXISTING CONDITIONS

This section presents the study area and describes existing roadway conditions within the Project area. ***Figure 4–1*** shows the existing conditions diagram.

4.1 Project Study Area

The Project's study area was developed focusing on the locations where project-generated traffic would most likely occur and where operational conditions could potentially be affected. The Project's study area includes the following intersections:

1. Black Mountain Road / Mira Mesa Boulevard (signal)
2. Mira Mesa Boulevard / Westview Parkway (signal)
3. Black Mountain Road / Hillery Drive (signal)
4. Hillery Drive / Westview Parkway (signal)
5. Hillery Drive / N. Campus Drive (stop-controlled)
6. Black Mountain Road / Gold Coast Drive (signal)

4.2 Existing Roadway Network

The following is a description of the existing roadway network in the study area.

Mira Mesa Boulevard is an east-west facility and is classified in the *Mira Mesa Community Plan* as an 8-Lane Prime Arterial east of Black Mountain Road and as a 6-Lane Prime Arterial west of Black Mountain Road. It is currently constructed as a six-to-eight-lane divided roadway. There are Class II bike lanes provided west of Black Mountain Road and Class III Bike Routes with 'Sharrows' east of Black Mountain Road. 'Corridor Sidewalks' are provided on both sides of the roadway. Curbside parking is generally prohibited. The posted speed limit is 35-40 mph.

Black Mountain Road is a north-south facility classified in the *Mira Mesa Community Plan* as a 4-Lane Major Arterial. It is currently constructed as a four-lane divided roadway. Bicycle facilities provided include Class II bike lanes north of Gold Coast Drive and Class III Bike Routes to the south. 'Connector Sidewalks' are provided on both sides of the roadway. While on-street parking is generally prohibited along the corridor, it is permitted south of Gold Coast Drive. The posted speed limit is 45 mph.

Westview Parkway is a north-south facility classified in the *Mira Mesa Community Plan* as a 4-Lane Collector (without a two-way left-turn lane). It is currently constructed as a four-lane roadway with a two-way left-turn lane (TWLTL) between Hillery Drive and approximately 500 feet north of Hillery Drive, and transitions into a four-lane divided roadway north of that point. 'District Sidewalks' are provided on both sides of the roadway. Class II bike lanes are provided between Mira Mesa Boulevard and Hillery Drive. On-street parking is prohibited throughout this segment, and the posted speed limit is 40 mph.

Hillery Drive is an east-west facility classified in the *Mira Mesa Community Plan* as a 4-Lane Collector (without TWLTL) between Westview Parkway and Black Mountain Road, and as a 2-Lane Collector (without TWLTL) west of Black Mountain Road. Currently, the segment east of Black Mountain Road is constructed as a four-lane roadway with a TWLTL, featuring Class II bike lanes and 'Connector Sidewalks' that extend to N. Campus Drive. Just east of the Miramar College Transit Station driveway, the roadway transitions to two lanes (one lane in each direction) until N. Campus Drive. Additionally, the roadway becomes an overpass providing direct access to the I-15 Express Lanes. Conversely, west of Black Mountain Road, the facility is a two-lane undivided roadway with standard sidewalks and permitted on-street parking. The posted speed limit is 35 mph.

Gold Coast Drive is an east-west facility classified in the *Mira Mesa Community Plan* as a 2-Lane Collector (without TWLTL) and is currently constructed as a two-lane undivided roadway. The corridor features Class III Bike Routes with 'Sharrows' provided in both directions. Pedestrian infrastructure consists of 'Neighborhood Sidewalks' west of Black Mountain Road and standard sidewalks to the east. On-street parking is permitted throughout the segment, and the posted speed limit is 30 mph.

4.3 Existing Traffic Volumes

Existing weekday AM and PM peak hour (7:00-9:00 AM and 4:00-6:00 PM) intersection counts (including bicycle and pedestrian counts) were conducted on Tuesday, March 10, 2026, when area schools, including Miramar College itself, were in session. ***Figure 4–2*** shows the existing traffic volumes. ***Appendix A*** contains the traffic count sheets and signal timing plans.

4.4 Existing Bicycle Network

There are four different existing and proposed bicycle facility classifications – Class I, Class II, Class III and Class IV as shown in ***Table 4–1.*** The *Mira Mesa Community Plan* provides a detailed inventory of the existing and proposed bicycle network in the Mira Mesa Community. ***Figure 4-3*** depicts an excerpt from the *Mira Mesa Community Plan* detailing the existing and proposed bicycle network.

4.5 Existing Pedestrian Conditions

The *Mira Mesa Community Plan* provides a detailed inventory of the existing pedestrian network in the Mira Mesa Community. ***Figure 4-4*** depicts an excerpt from the *Mira Mesa Community Plan* detailing the existing pedestrian network.

4.6 Existing Transit Conditions

The *Mira Mesa Community Plan* provides a detailed inventory of the existing and proposed transit network in the Mira Mesa Community. ***Figure 4-5*** depicts an excerpt from the *Mira Mesa Community Plan* detailing the existing and proposed transit network.

Bus service is provided by the Metropolitan Transit System (MTS). The Miramar College Transit Station is located on campus, adjacent to the Westview Parkway / Hillery Drive driveway. The bus

routes serving the immediate Project area include MTS Routes 20, 31, 110, 235, 237, 921, and 964. A description of the routes is provided below. ***Appendix B*** includes the timetable of the bus routes.

Route 20 runs between Downtown San Diego and the Rancho Bernardo Transit Station. The route runs along Interstate-15, Hillery Drive, and Westview Parkway. There is a total of thirty-nine (39) stops along this route. Weekday service begins at 5:53 AM with 30-minute headways and ends at 8:54 PM. Saturday service begins at 7:09 AM with 30-minute headways and ends at 7:39 PM. Sunday service begins at 7:39 AM with 60-minute headways and ends at 7:39 PM.

Route 31 runs between the UTC Transit Center and Miramar College Transit Station. The route runs along Black Mountain Road, Miramar Road, La Jolla Village Drive and Genesee Avenue. There is a total of twenty-eight (28) stops along this route. Weekday service begins at 6:02 AM with 30-minute headways and ends at 6:33 PM. This route does not operate on the weekends.

Route 110 runs between Mira Mesa and Downtown San Diego. The route runs along Mira Mesa Boulevard, Black Mountain Road, Interstate-15, and Broadway. There is a total of nineteen (19) stops along this route. Weekday morning service begins at 6:02 AM with 20-minute headways and ends at 7:04 AM. Weekday afternoon service begins at 4:01 PM with 30-minute headways and ends at 5:21 PM. This route does not operate on the weekends.

Route 235 runs between the Escondido Transit Center and Downtown San Diego. The route runs along Tulip Street, Quince Street, Washington Avenue, Interstate-15, and Broadway. There is a total of ten (10) stops along this route. Weekday service begins at 5 AM with 15-minute headways and ends at 10:35 PM. Weekend service begins at 5:01 AM with 30-minute headways and ends at 10:05 PM.

Route 237 runs between Mira Mesa and UC San Diego. The route runs along Hillery Drive, Mira Mesa Boulevard, Interstate-805, La Jolla Village Drive, and Gilman Drive. There is a total of twelve (12) stops along this route. Weekday service begins at 5:52 AM with 15-minute headways and ends at 7:17 PM. This route does not operate on the weekends.

Route 921 runs between UTC Transit Center and the Miramar College Transit Station. The route runs along Black Mountain Road, Mira Mesa Boulevard, Pacific Heights Boulevard, Barnes Canyon Road, La Jolla Village Drive, and Genesee Avenue. There is a total of thirty-one (31) stops along this route. Weekday service begins at 6:17 AM with 30-minute headways and ends at 7:07 PM. Weekend service begins at 7:19 AM with 60-minute headways and ends at 7:22 PM.

Route 964 runs between Alliant International University and Camino Ruiz & Capricorn Way. The route runs along Avenue of Nations, Willow Creek Road, Scripps Ranch Boulevard, Mira Mesa Boulevard, Hillery Drive, Black Mountain Road, Gold Coast Drive, and Camino Ruiz. There is a total of twenty-nine (29) stops along this route. Weekday service begins at 6:04 AM with 30-minute headways and ends at 6:53 PM. This route does not operate on the weekends.

TABLE 4–1
BICYCLE FACILITY CLASSIFICATIONS

Class I refers to exclusive **bike paths**, also termed shared-use or multi-use paths, for exclusive use by bicyclists, pedestrians, and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway right-of-way or exclusive right-of-way. Bike paths provide critical connections where roadways are absent or are not conducive to bicycle travel.



Class II refers to **bicycle lanes** defined by pavement striping and signage used to allocate a portion of a roadway for bicycle travel. Bike lanes are one-way facilities on either side of a roadway. A painted buffer can separate bikes from vehicles or parking lanes. Green paint can identify conflict zones.

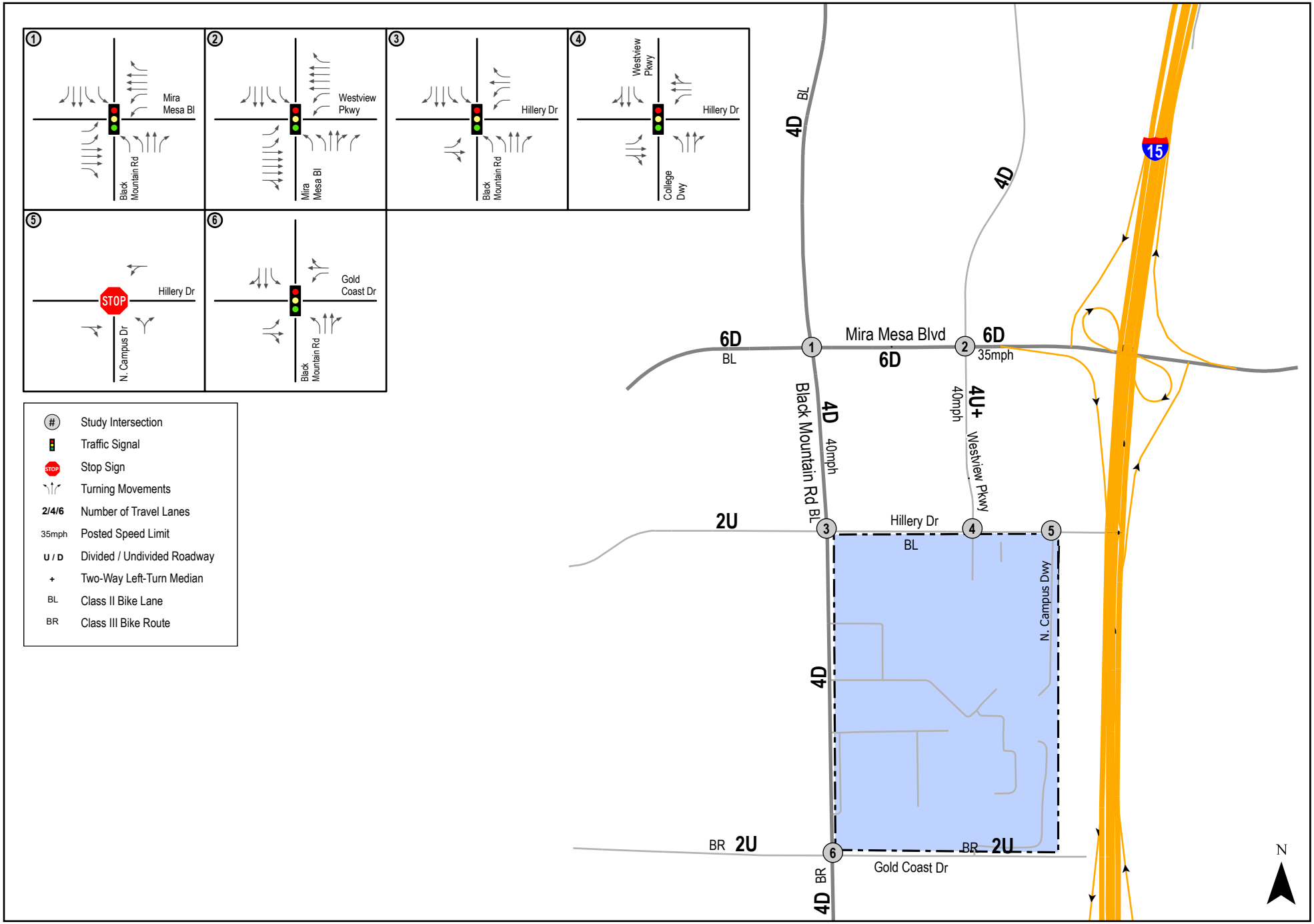


Class III refers to bike routes that share use with motor vehicle traffic within the same travel lane. Bike routes are identified with signage and street markings known as "sharrows" or shared lane markings to delineate that the road is a shared-use facility.



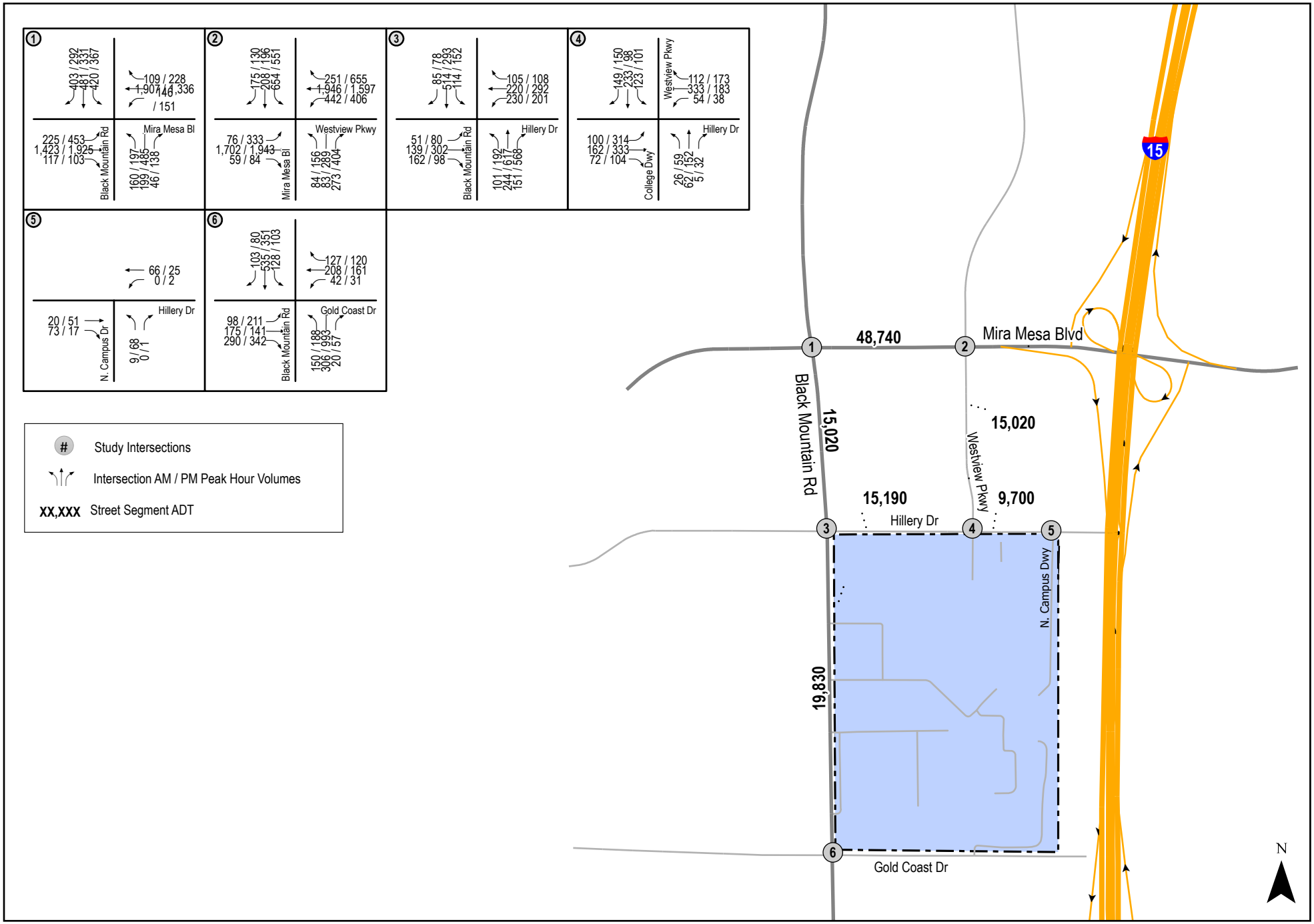
Class IV refers to a **Cycle Track**, which is a hybrid type bicycle facility that combines the experience of a separated path with the on-street infrastructure of a conventional bike lane. Cycle tracks are bikeways located in roadway right-of-way but separated from vehicle lanes by physical barriers, flexible posts, on-street parking curbs, or other objects. Cycle tracks provide for one-way or two-way bicycle travel and are exclusively for bicycle use.





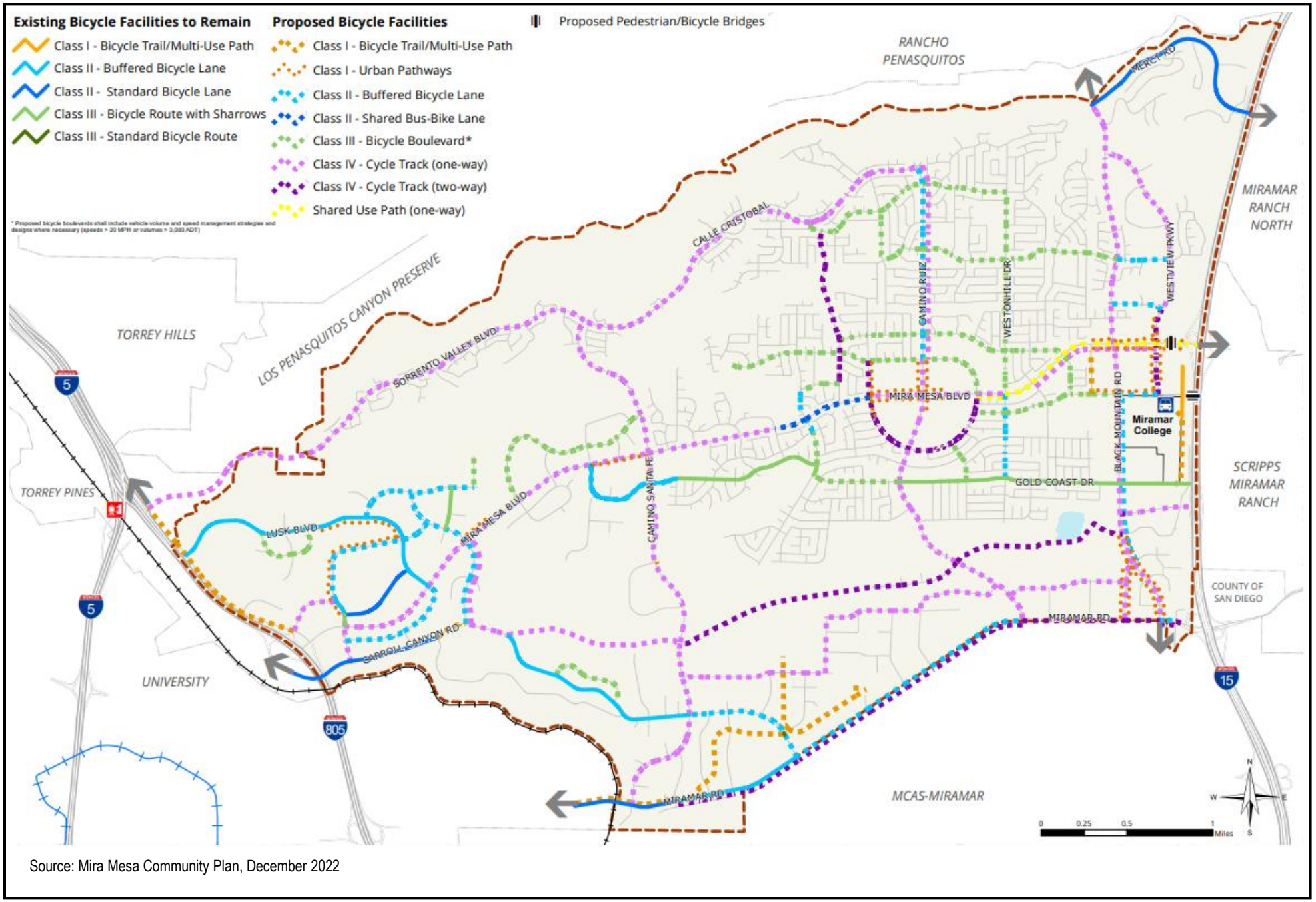
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Figure 4-1
Existing Conditions Diagram



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Figure 4-2
Existing Traffic Volumes

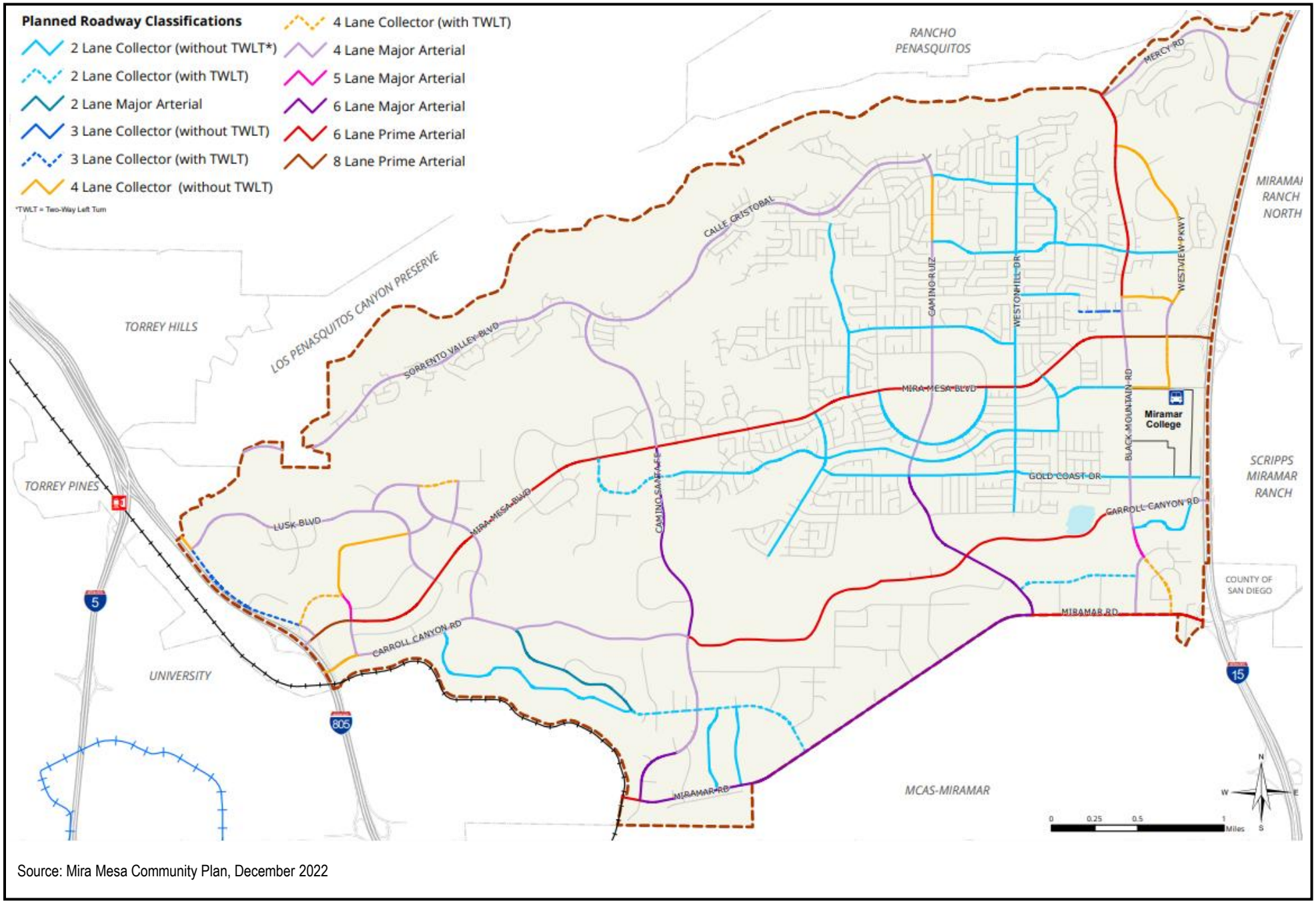


Source: Mira Mesa Community Plan, December 2022

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Figure 4-3

Existing and Proposed Bicycle Network

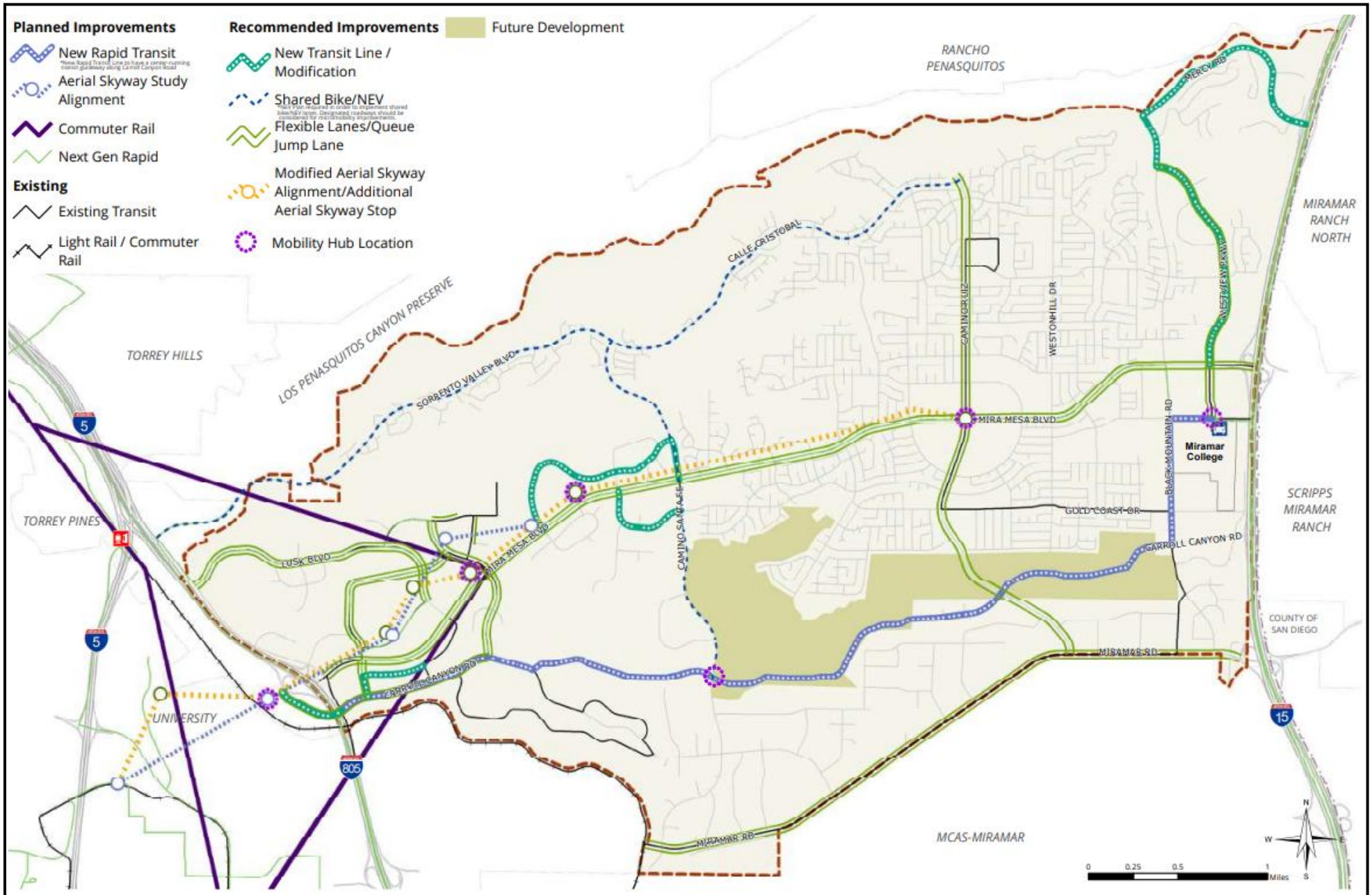


Source: Mira Mesa Community Plan, December 2022

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Figure 4-4

Existing Pedestrian Network



Source: Mira Mesa Community Plan, December 2022

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Figure 4-5

Existing and Proposed Transit Network

5.0 EXISTING ANALYSIS

The analysis of existing conditions includes the assessment of the study area intersections using the methodologies described in *Section 3.0*.

5.1 Peak Hour Intersection Operations

Table 5–1 summarizes the existing peak hour intersection operations. As seen in *Table 5–1*, the study area intersections are calculated to operate acceptably at LOS D or better with the exception of the following:

- Intersection #2. Mira Mesa Boulevard / Westview Parkway – LOS E (PM Peak Hour)
- Intersection #6. Black Mountain Road / Gold Coast Drive – LOS E (PM Peak Hour)

Appendix C contains the intersection analysis worksheets for the Existing scenario.

TABLE 5–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
1. Black Mountain Road / Mira Mesa Boulevard	Signal	AM PM	54.0 52.8	D D
2. Mira Mesa Boulevard / Westview Parkway	Signal	AM PM	52.9 56.4	D E
3. Black Mountain Road / Hillery Drive	Signal	AM PM	35.8 42.3	D D
4. Hillery Drive / Westview Parkway	Signal	AM PM	20.4 24.5	C C
5. Hillery Drive / N. Campus Drive	AWSC[c]	AM PM	7.2 7.8	A A
6. Black Mountain Road / Gold Coast Drive	Signal	AM PM	43.1 60.3	D E

Footnotes:
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. All-Way Stop Control. Average intersection delay is reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

6.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The section below provides a detailed description of the trip generation increase due to the Project. As noted in *Section 2.3.1*, this study specifically analyzes the Project's effects to the local circulation system associated with the proposed increase in on-campus students outlined in *Section 2.2.3*, as opposed to specific infrastructure or planning changes that are proposed as a part of the Project. This is consistent with guidance provided by the Institute of Traffic Engineers (ITE) in their Trip Generation Manual (12th Edition, 2025), which notes that acreage, floor space, staff, and parking accommodations can vary widely with the populations served and the social and economic characteristics of the area and therefore the number of students may be the most reliable independent variable on which to establish a trip generation estimate.

As noted in *Section 2.2.*3, an increase of 2,116 'on-campus students' compared to baseline (Fall 2025) conditions is expected as part of the Project, over a 20-year period. 'Off-Campus' students enrolled in either off-site programs (i.e., high school courses receiving District credits) or online courses do not regularly attend the physical Miramar College campus or use campus facilities and are therefore not accounted for in this analysis.

6.1 Trip Generation Rate Comparison

The following sources were reviewed to determine the appropriate trip generation rates for the increase in on-campus students associated with the Project:

- *City of San Diego* - The City of San Diego *Trip Generation Manua*l, May 2003 provides a rate of **1.6 ADT per student** for the 'Community College (2 years)' land use type.
- *SANDAG* - SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002, provides a rate of **1.2 ADT per student** for the 'Junior College (2 years)' land use type.
- *ITE*- The ITE Trip *Generation Manual*, 12th Edition, August 2025, provides a rate of **1.15 ADT per student** for 'Junior/Community College (Land use code 540)' land use type.

The City of San Diego Trip Generation Manual indicates that the Community College trip generation rate is based on data originally developed by SANDAG. As such, the City rate ultimately reflects the same underlying dataset used to develop the SANDAG trip generation relationship. SANDAG college rates are based on data collected in the 1970s, and therefore, both the City and SANDAG rates are based on very old travel behavior patterns. In contrast, the ITE *Trip Generation Manual* (12th Edition, 2025) reflects a substantially more recent dataset compiled from observed trip generation studies across multiple sites.

After careful consideration, the ITE trip rate of 1.15 ADT per student was selected for use in calculating the Project trip generation. The ITE rate was published in 2025 and accounts for a number of factors that have resulted in a reduction in trips to/from college campuses including the prevalence

of hybrid and on-line classes. The City and SANDAG rates, published in 2003 and 2002, respectively, are both over 20 years old and can be considered outdated in a number of ways.

It should be noted that all of the trip rates listed above account for all trips to and from the campus including trips made by students, teachers, staff, visitors, deliveries, etc.

6.2 Trip Generation Calculations

Table 6–1 summarizes the Project's estimated trip generation. As shown in *Table 6–1*, the Project is estimated to generate an additional 2,433 Average Daily Trips (ADT) with 233 AM peak hour trips (189 inbound / 44 outbound) and 233 PM peak hour trips (130 inbound / 103 outbound).

6.3 Trip Distribution & Assignment

The Project trip distribution was developed based on the locations of the existing and proposed access points, traffic patterns observed from the existing traffic counts, and the proximity of the Project site to surrounding freeways, and residential and commercial areas.

Figure 6–1 shows the Project trip distribution percentages. ***Figure 6–2*** shows the Project traffic volumes.

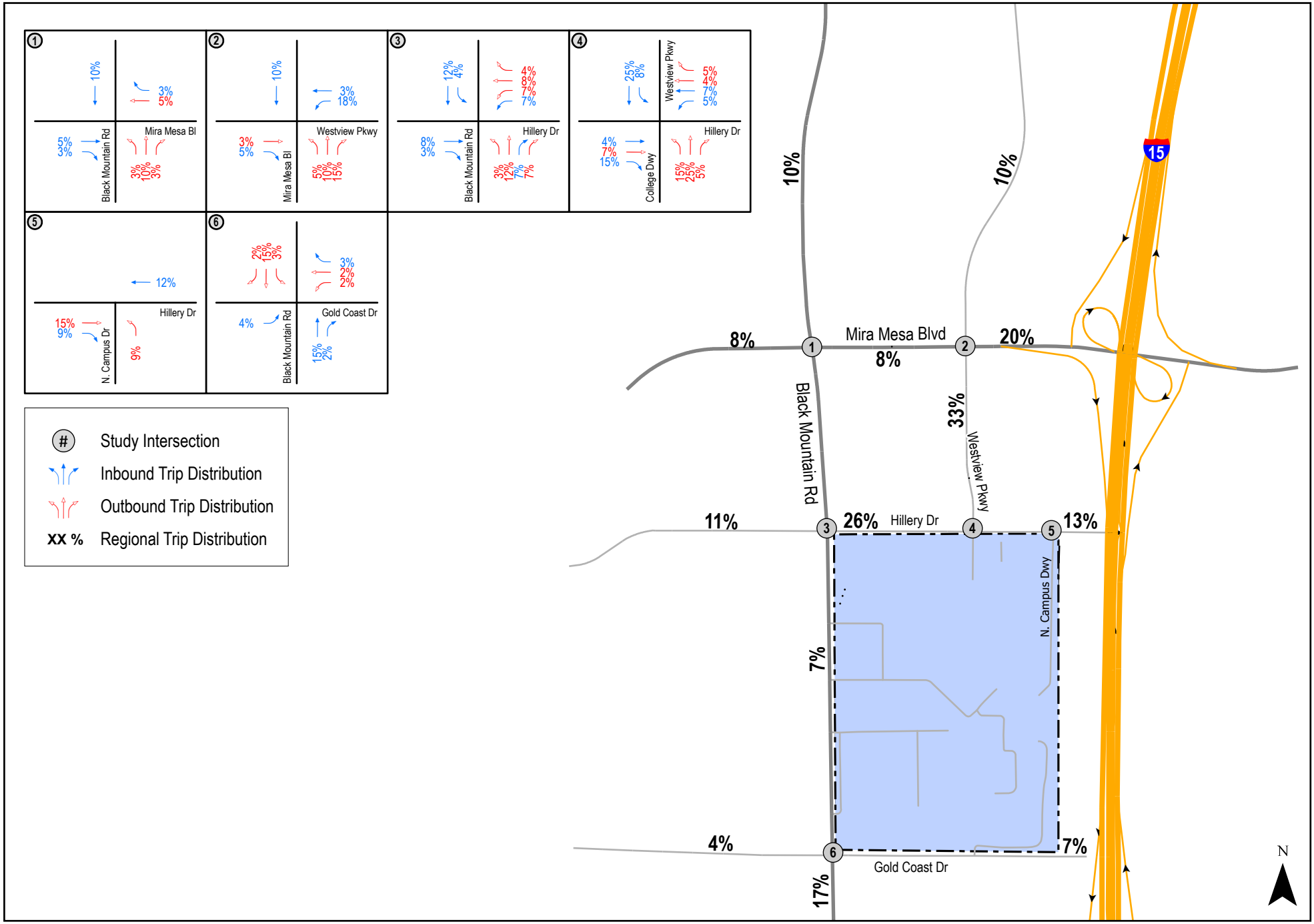
TABLE 6–1
PROJECT TRIP GENERATION

Land Use	Quantity	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
						Volume					Volume		
		Rate [a]	Volume	Rate	In:Out Split	In	Out	Total	Rate	In:Out Split	In	Out	Total
Miramar College	2,116 Students [b]	1.15 / Student	2,433	0.11 / Student	81:19	189	44	233	0.11 / Student	56:44	130	103	233

Footnotes:

a. Trip Rate for 'Junior/Community College' (Land use code 540) from the ITE Trip Generation Manual, 12th Edition.

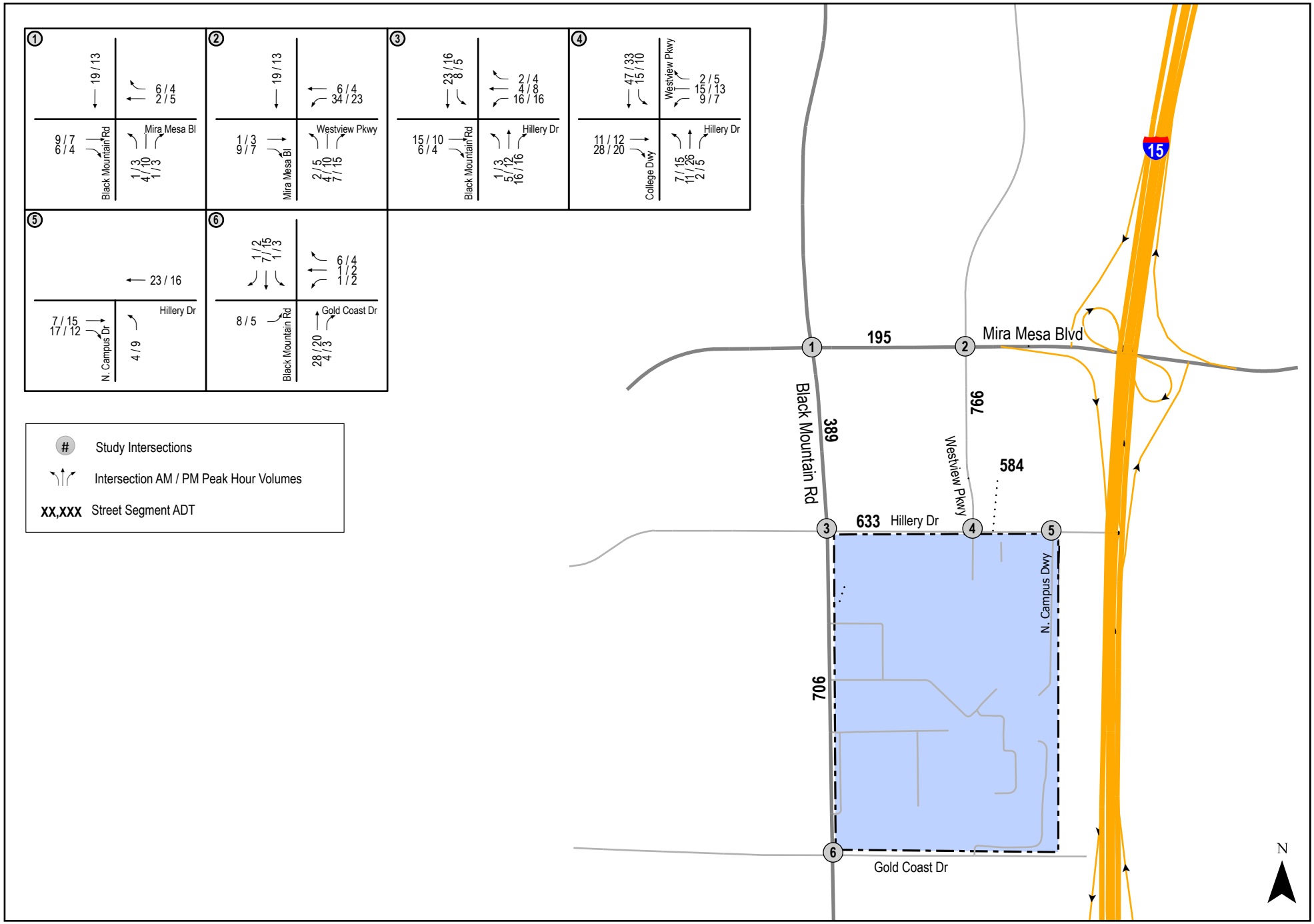
b. Increase in students from 2025 to 2045 is based on 1.5%/year growth for 20 years



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Figure 6-1
Project Traffic Distribution

Miramar College Master Plan



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Figure 6-2
Project Traffic Volumes

7.0 BUILDOUT YEAR 2045 ANALYSIS

The following section presents the analysis of study area intersections under Buildout Year 2045 conditions.

7.1 Buildout Year 2045 Traffic Volumes

Buildout Year 2045 traffic volumes were developed based on a review of SANDAG's 2016 AMB2+ and 2050 ABM2+ traffic volumes from SANDAG's Transportation Forecast Information Center (see ***Appendix D***). This review enabled LLG to calculate an ambient growth factor percentage that represents generating traffic in the study area vicinity expected at Buildout 2045. A factor of 0.23% per year for 19 years (2026 to 2045; 4.4% total), was applied to the existing traffic volumes to estimate Buildout Year 2045 traffic volumes.

It should be noted that the majority of the traffic volumes in the study area were shown to *decrease* when compared to the SANDAG 2050 model volumes, as shown in *Appendix D*. Therefore, the 0.23% annual growth factor is considered conservative.

Additionally, it should be noted that the 0.23% annual growth factor was not applied to the movements going directly to/from campus (as shown in ***Appendix E***) since on-campus attendance is not assumed to increase above Fall 2025 enrollment under the 'without Project' conditions.

Figure 7–1 shows the Buildout Year 2045 traffic volumes. ***Figure 7–2*** shows the Buildout Year 2045+ Project traffic volumes.

7.2 Buildout Year 2045 without Project

7.2.1 *Peak Hour Intersection Operations*

Table 7–1 summarizes the peak hour intersection operations for the Buildout Year 2045 without Project condition. As seen in *Table 7–1*, the study area intersections are calculated to operate acceptably at LOS D or better, with the exception of the following:

- Intersection #1. Black Mountain Road / Mira Mesa Boulevard – LOS E (AM/PM Peak Hours)
- Intersection #2. Mira Mesa Boulevard / Westview Parkway – LOS E (AM/PM Peak Hours
- Intersection #6: Miramar College Drive / Linda Vista Road (LOS E during the AM Peak Hour)

Appendix F contains the intersection analysis worksheets for the Buildout Year 2045 scenario.

7.3 Buildout Year 2045 + Project

7.3.1 *Peak Hour Intersection Operations*

Table 7–1 summarizes the peak hour intersection operations for the Buildout Year 2045+ Project condition. As seen in *Table 7–1*, with the addition of Project traffic, the study area intersections are calculated to continue to operate acceptably at LOS D or better, with the exception of the following:

- Intersection #1. Black Mountain Road / Mira Mesa Boulevard – LOS E (AM/PM Peak Hours)
- Intersection #2. Mira Mesa Boulevard / Westview Parkway – LOS E (AM/PM Peak Hours)
- Intersection #6. Black Mountain Road / Gold Coast Drive – LOS E (PM Peak Hour)

As noted in *Section 3.3.1*, improvements should be considered when a project within a ½-mile path of travel to a Major Transit Stop adds traffic to a signalized intersection that is already operating at LOS F or causes an intersection to degrade to LOS F. Miramar College is located within a ½-mile path of travel to a Major Transit Stop. All study intersections are calculated to operate at LOS E or better under 'Without Project' and 'With Project' conditions. Therefore, it can be concluded that the Project does not add traffic to a signalized intersection that is already operating at LOS F or cause an intersection to degrade to LOS F and thus improvements are not required.

Appendix G contains the intersection analysis worksheets for the Buildout Year 2045 + Project scenario.

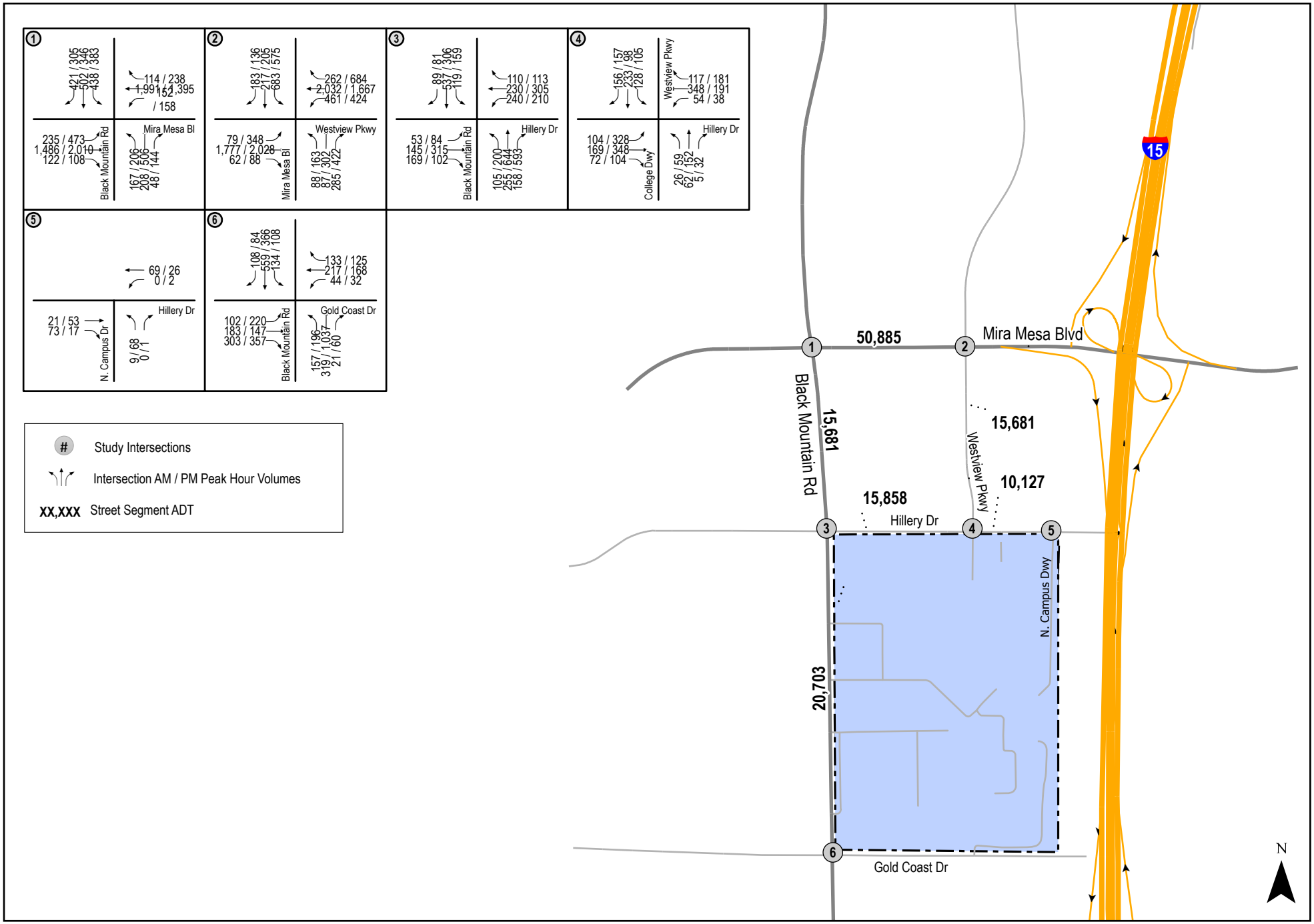
TABLE 7–1
BUILDOUT YEAR 2045 INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Buildout Year 2045		Buildout Year 2045 + P		Δ[c]
			Delay[a]	LOS[b]	Delay[a]	LOS[b]	
1. Black Mountain Road / Mira Mesa Boulevard	Signal	AM	59.2	E	59.3	E	0.1
		PM	55.3	E	55.6	E	0.3
2. Mira Mesa Boulevard / Westview Parkway	Signal	AM	55.8	E	57.4	E	1.6
		PM	59.5	E	61.1	E	1.6
3. Black Mountain Road / Hillery Drive	Signal	AM	36.4	D	37.4	D	1.0
		PM	43.8	D	45.8	D	2.0
4. Hillery Drive / Westview Parkway	Signal	AM	21.0	C	22.0	C	1.0
		PM	25.7	C	27.3	C	1.6
5. Hillery Drive / N. Campus Drive	AWSC[d]	AM	7.3	A	7.6	A	0.3
		PM	7.8	A	8.0	A	0.2
6. Black Mountain Road / Gold Coast Drive	Signal	AM	49.6	D	51.1	D	1.5
		PM	65.1	E	67.2	E	2.1

Footnotes:

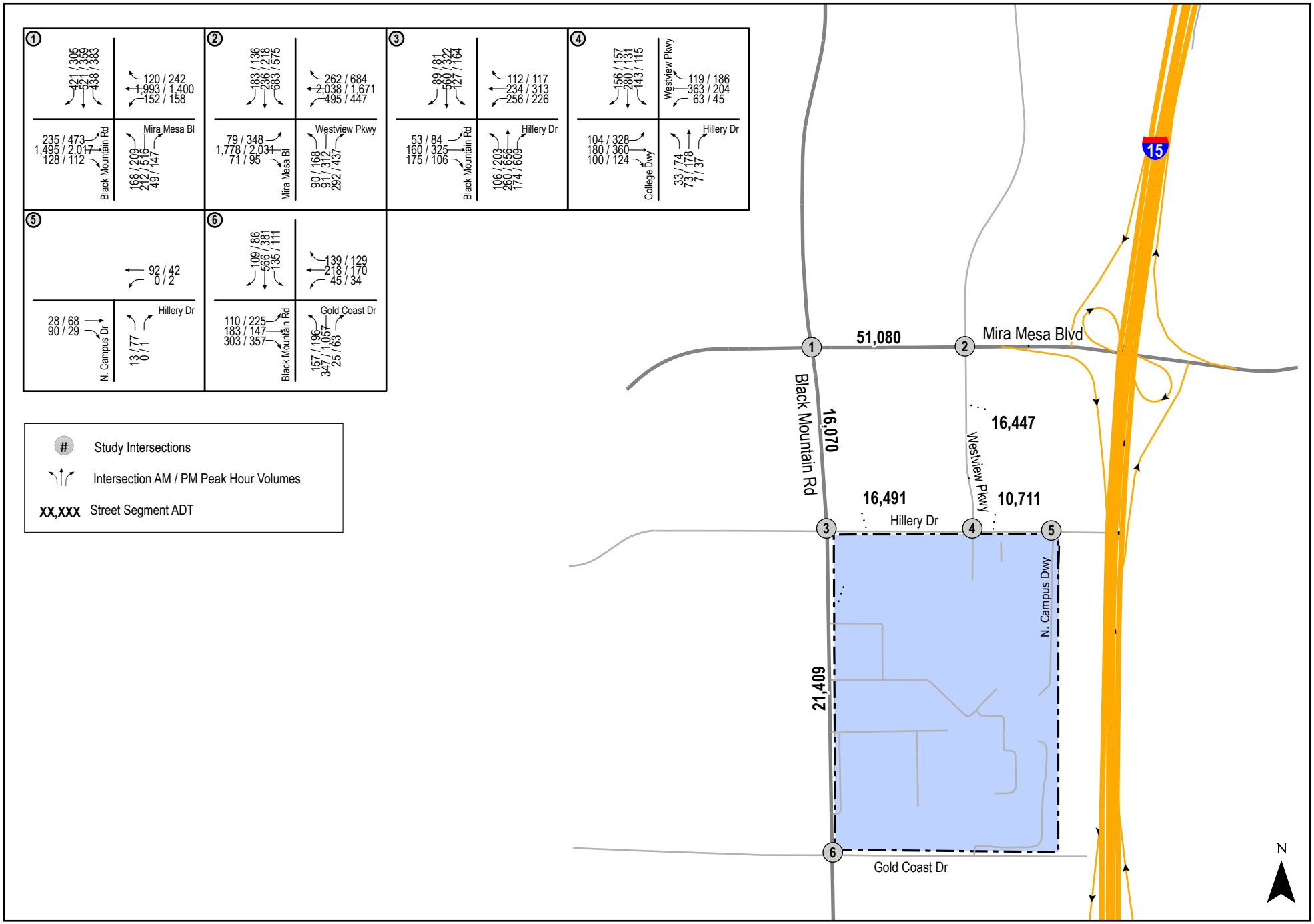
a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes the project-induced increase in delay.
d. All-Way Stop Control. Average intersection delay is reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F



N:\4051\Figure
Date: 4/8/2026

Figure 7-1
Buildout Year 2045 Traffic Volumes



N:\4051\Figure
Date: 4/8/2026

Figure 7-2
Buildout Year 2045 + Project Traffic Volumes

8.0 CONCLUSIONS

This study specifically analyzes the Project's effects to the local circulation system associated with the proposed increase in on-campus students outlined in *Section 2.2.3*, as opposed to specific infrastructure or planning changes that are proposed as a part of the Project. As noted in *Section 2.2.3*, an increase of 2,116 on-campus students over a 20-year period is expected as part of the Project. The Year 2045 was chosen as the analysis year for the Project.

Table 7–1 summarizes the peak hour intersection operations for the Buildout Year 2045 condition under without and with Project traffic volumes. As seen in *Table 7–1*, with the addition of Project traffic, the study area intersections are calculated to continue to operate acceptably at LOS D or better, with the exception of the following:

- Intersection #1. Black Mountain Road / Mira Mesa Boulevard – LOS E (AM/PM Peak Hours)
- Intersection #2. Mira Mesa Boulevard / Westview Parkway – LOS E (AM/PM Peak Hours)
- Intersection #6. Black Mountain Road / Gold Coast Drive – LOS E (PM Peak Hour)

As noted in *Section 3.3.1*, improvements should be considered when a project within a ½-mile path of travel to a Major Transit Stop adds traffic to a signalized intersection that is already operating at LOS F or causes an intersection to degrade to LOS F. Miramar College is located within a ½-mile path of travel to a Major Transit Stop. Therefore, it can be concluded that the Project does not add traffic to a signalized intersection that is already operating at LOS F or cause an intersection to degrade to LOS F and thus improvements are not required.

An assessment to determine the impacts on Vehicle Miles Traveled (VMT) for the Project is provided under a separate cover.

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TECHNICAL APPENDICES

MIRAMAR COLLEGE MASTER PLAN

City of San Diego, California
June 24, 2026

LLG Ref. 3-25-4051

APPENDICES

APPENDIX

A. Intersection Counts & Signal Timing Plans

B. Transit Schedules

C. Peak Hour Intersection Analysis Worksheets – Existing

D. SANDAG's 2016 AMB2+ and 2050 ABM2+ Traffic Volumes

E. Figure Identifying Intersection Movements to/from Campus Where the Annual Growth Factor Was Not Applied

F. Peak Hour Intersection Analysis Worksheets – Year 2045

G. Peak Hour Intersection Analysis Worksheets – Year 2045 + Project

APPENDIX A

INTERSECTION COUNTS & SIGNAL TIMINGS PLANS

Counts Unlimited, Inc.
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City of San Diego
N/S: Black Mountain Road
E/W: Mira Mesa Boulevard
Weather: Clear

File Name : 01_SDG_BMtn_MM AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

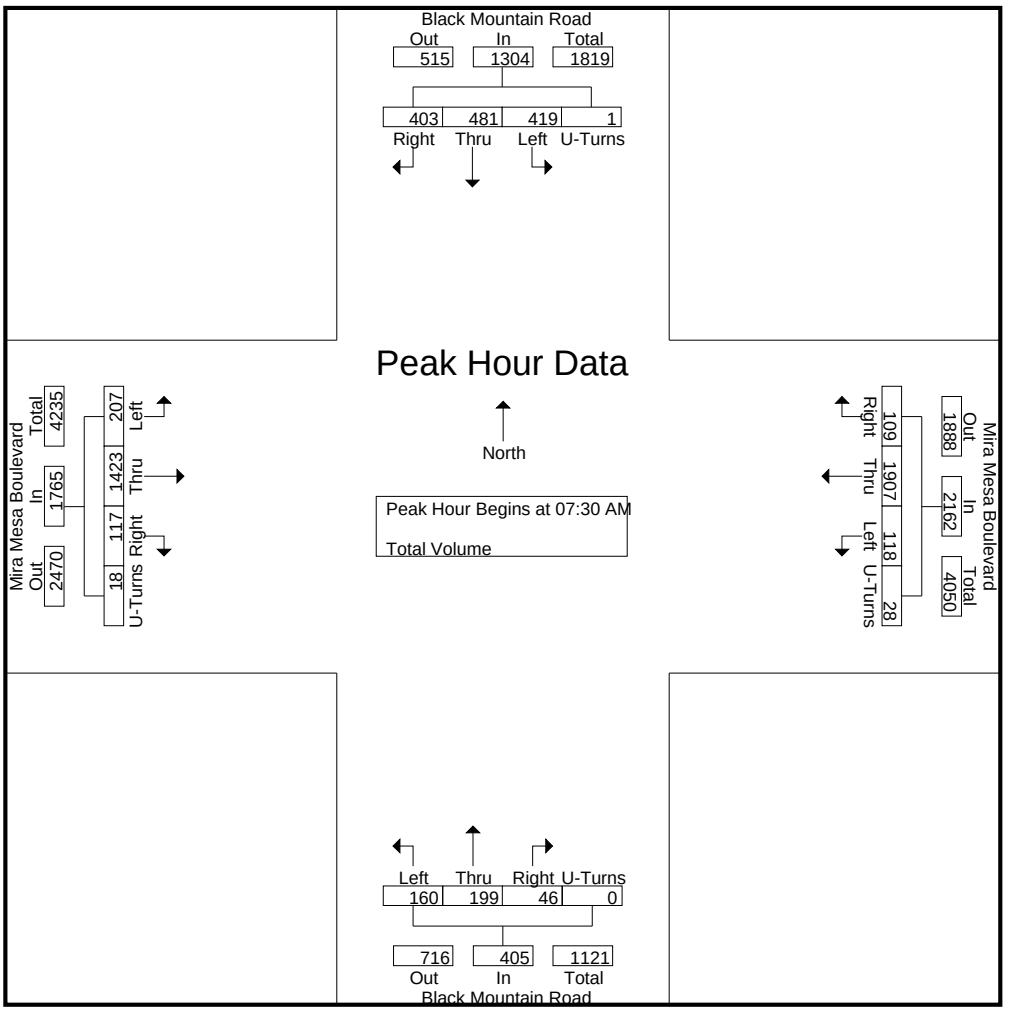
	Black Mountain Road Southbound					Mira Mesa Boulevard Westbound					Black Mountain Road Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	89	48	75	1	213	25	344	18	3	390	28	35	10	0	73	23	218	10	3	254	930
07:15 AM	88	74	99	0	261	28	491	15	9	543	27	30	6	0	63	40	295	21	3	359	1226
07:30 AM	118	127	105	0	350	39	475	21	7	542	48	57	8	0	113	45	336	30	1	412	1417
07:45 AM	93	150	107	1	351	31	485	40	6	562	48	64	12	0	124	61	338	36	6	441	1478
Total	388	399	386	2	1175	123	1795	94	25	2037	151	186	36	0	373	169	1187	97	13	1466	5051
08:00 AM	113	116	98	0	327	22	481	26	10	539	32	47	11	0	90	42	399	28	5	474	1430
08:15 AM	95	88	93	0	276	26	466	22	5	519	32	31	15	0	78	59	350	23	6	438	1311
08:30 AM	121	123	111	0	355	18	447	30	10	505	27	44	12	0	83	54	347	33	13	447	1390
08:45 AM	102	115	99	0	316	32	503	29	10	574	36	37	16	0	89	35	265	20	4	324	1303
Total	431	442	401	0	1274	98	1897	107	35	2137	127	159	54	0	340	190	1361	104	28	1683	5434
Grand Total	819	841	787	2	2449	221	3692	201	60	4174	278	345	90	0	713	359	2548	201	41	3149	10485
Apprch %	33.4	34.3	32.1	0.1		5.3	88.5	4.8	1.4		39	48.4	12.6	0		11.4	80.9	6.4	1.3		
Total %	7.8	8	7.5	0	23.4	2.1	35.2	1.9	0.6	39.8	2.7	3.3	0.9	0	6.8	3.4	24.3	1.9	0.4	30	

	Black Mountain Road Southbound					Mira Mesa Boulevard Westbound					Black Mountain Road Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**118**	127	105	0	350	**39**	475	21	7	542	**48**	57	8	0	113	45	336	30	1	412	1417
07:45 AM	93	**150**	**107**	**1**	**351**	31	**485**	**40**	6	**562**	48	**64**	12	0	**124**	**61**	338	**36**	**6**	441	**1478**
08:00 AM	113	116	98	0	327	22	481	26	**10**	539	32	47	11	0	90	42	**399**	28	5	**474**	1430
08:15 AM	95	88	93	0	276	26	466	22	5	519	32	31	**15**	0	78	59	350	23	6	438	1311
Total Volume	419	481	403	1	1304	118	1907	109	28	2162	160	199	46	0	405	207	1423	117	18	1765	5636
% App. Total	32.1	36.9	30.9	0.1		5.5	88.2	5	1.3		39.5	49.1	11.4	0		11.7	80.6	6.6	1		
PHF	.888	.802	.942	.250	.929	.756	.983	.681	.700	.962	.833	.777	.767	.000	.817	.848	.892	.813	.750	.931	.953

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Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM					07:15 AM					07:30 AM					07:45 AM				
+0 mins.	93	**150**	107	**1**	351	28	**491**	15	9	543	**48**	57	8	0	113	**61**	338	**36**	6	441
+15 mins.	113	116	98	0	327	**39**	475	21	7	542	48	**64**	12	0	**124**	42	**399**	28	5	**474**
+30 mins.	95	88	93	0	276	31	485	**40**	6	**562**	32	47	11	0	90	59	350	23	6	438
+45 mins.	**121**	123	**111**	0	**355**	22	481	26	**10**	539	32	31	**15**	0	78	54	347	33	**13**	447
Total Volume	422	477	409	1	1309	120	1932	102	32	2186	160	199	46	0	405	216	1434	120	30	1800
% App. Total	32.2	36.4	31.2	0.1		5.5	88.4	4.7	1.5		39.5	49.1	11.4	0		12	79.7	6.7	1.7	
PHF	.872	.795	.921	.250	.922	.769	.984	.638	.800	.972	.833	.777	.767	.000	.817	.885	.898	.833	.577	.949

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File Name : 01_SDG_BMtn_MM PM
Site Code : 05726228
Start Date : 3/10/2026
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Groups Printed- Total Volume

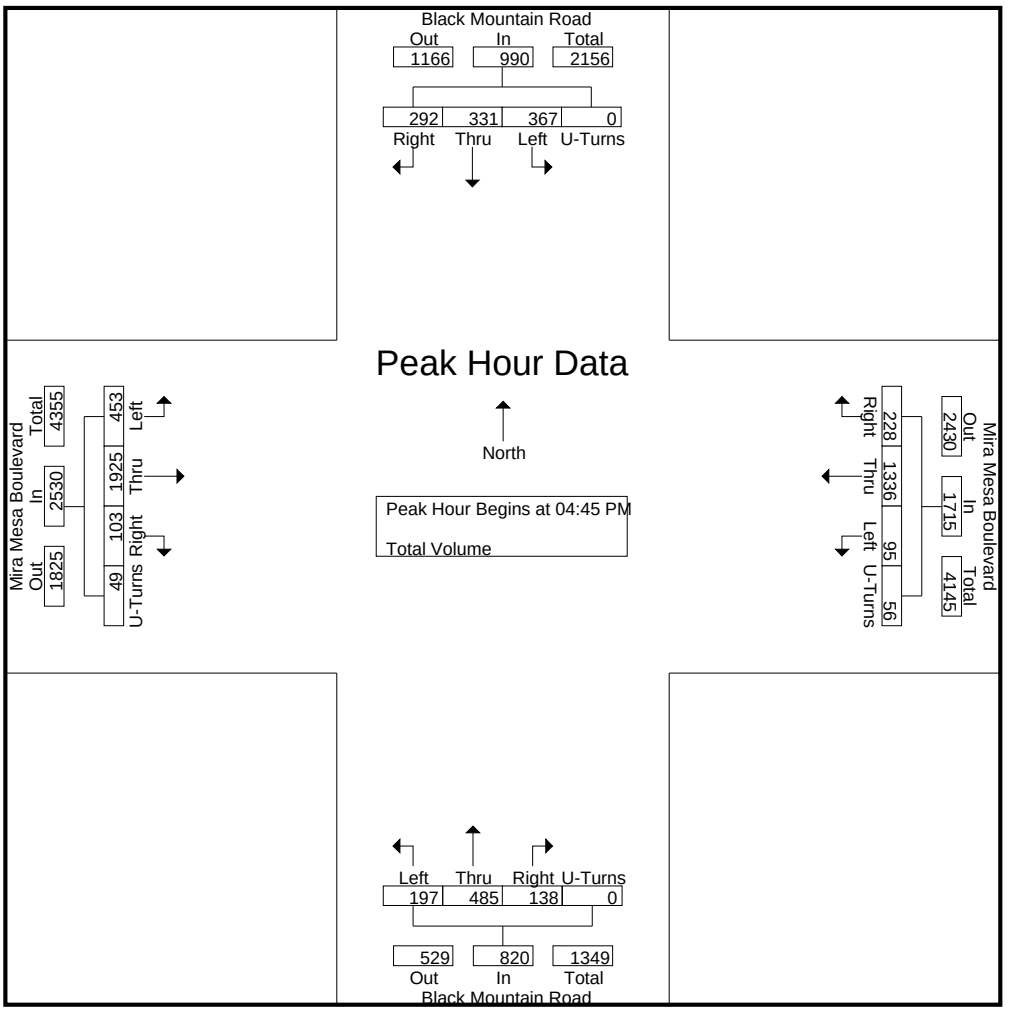
	Black Mountain Road Southbound					Mira Mesa Boulevard Westbound					Black Mountain Road Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	86	75	72	0	233	25	281	42	11	359	41	130	27	0	198	124	474	22	14	634	1424
04:15 PM	107	81	80	0	268	24	295	38	18	375	50	124	28	0	202	128	459	32	13	632	1477
04:30 PM	82	90	77	0	249	21	288	59	10	378	39	121	37	0	197	131	510	30	13	684	1508
04:45 PM	93	86	80	0	259	19	329	58	19	425	49	139	42	0	230	118	495	37	12	662	1576
Total	368	332	309	0	1009	89	1193	197	58	1537	179	514	134	0	827	501	1938	121	52	2612	5985
05:00 PM	110	88	74	0	272	17	277	47	13	354	64	119	30	0	213	118	487	22	12	639	1478
05:15 PM	79	85	68	0	232	31	343	64	15	453	40	117	31	0	188	96	441	27	11	575	1448
05:30 PM	85	72	70	0	227	28	387	59	9	483	44	110	35	0	189	121	502	17	14	654	1553
05:45 PM	104	66	65	1	236	21	329	73	10	433	49	91	32	0	172	125	486	34	20	665	1506
Total	378	311	277	1	967	97	1336	243	47	1723	197	437	128	0	762	460	1916	100	57	2533	5985
Grand Total	746	643	586	1	1976	186	2529	440	105	3260	376	951	262	0	1589	961	3854	221	109	5145	11970
Apprch %	37.8	32.5	29.7	0.1		5.7	77.6	13.5	3.2		23.7	59.8	16.5	0		18.7	74.9	4.3	2.1		
Total %	6.2	5.4	4.9	0	16.5	1.6	21.1	3.7	0.9	27.2	3.1	7.9	2.2	0	13.3	8	32.2	1.8	0.9	43	

	Black Mountain Road Southbound					Mira Mesa Boulevard Westbound					Black Mountain Road Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	93	86	**80**	0	259	19	329	58	**19**	425	49	**139**	**42**	0	**230**	118	495	**37**	12	**662**	**1576**
05:00 PM	**110**	**88**	74	0	**272**	17	277	47	13	354	**64**	119	30	0	213	118	487	22	12	639	1478
05:15 PM	79	85	68	0	232	**31**	343	**64**	15	453	40	117	31	0	188	96	441	27	11	575	1448
05:30 PM	85	72	70	0	227	28	**387**	59	9	**483**	44	110	35	0	189	**121**	**502**	17	**14**	654	1553
Total Volume	367	331	292	0	990	95	1336	228	56	1715	197	485	138	0	820	453	1925	103	49	2530	6055
% App. Total	37.1	33.4	29.5	0		5.5	77.9	13.3	3.3		24	59.1	16.8	0		17.9	76.1	4.1	1.9		
PHF	.834	.940	.913	.000	.910	.766	.863	.891	.737	.888	.770	.872	.821	.000	.891	.936	.959	.696	.875	.955	.961

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File Name : 01_SDG_BMtn_MM PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM					05:00 PM					04:15 PM					04:15 PM				
+0 mins.	107	81	**80**	0	268	17	277	47	13	354	50	124	28	0	202	128	459	32	**13**	632
+15 mins.	82	**90**	77	0	249	**31**	343	64	**15**	453	39	121	37	0	197	**131**	**510**	30	13	**684**
+30 mins.	93	86	80	0	259	28	**387**	59	9	**483**	49	**139**	**42**	0	**230**	118	495	**37**	12	662
+45 mins.	**110**	88	74	0	**272**	21	329	**73**	10	433	**64**	119	30	0	213	118	487	22	12	639
Total Volume	392	345	311	0	1048	97	1336	243	47	1723	202	503	137	0	842	495	1951	121	50	2617
% App. Total	37.4	32.9	29.7	0		5.6	77.5	14.1	2.7		24	59.7	16.3	0		18.9	74.6	4.6	1.9	
PHF	.891	.958	.972	.000	.963	.782	.863	.832	.783	.892	.789	.905	.815	.000	.915	.945	.956	.818	.962	.957

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City of San Diego
N/S: Westview Parkway
E/W: Mira Mesa Boulevard
Weather: Clear

File Name : 02_SDG_Wv_MM AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

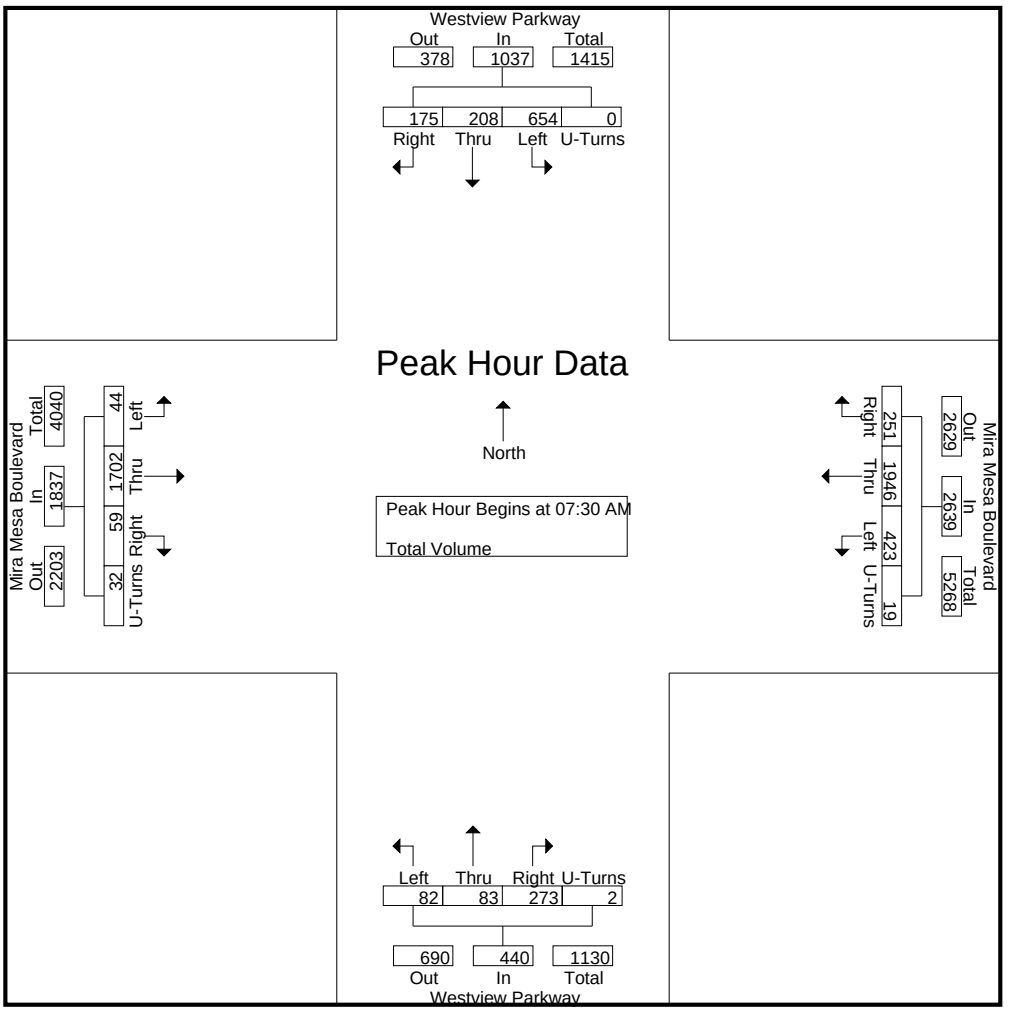
	Westview Parkway Southbound					Mira Mesa Boulevard Westbound					Westview Parkway Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	152	28	42	0	222	51	317	48	5	421	13	19	53	0	85	3	273	4	1	281	1009
07:15 AM	132	27	35	0	194	59	513	53	5	630	15	22	68	0	105	13	360	7	3	383	1312
07:30 AM	190	82	53	0	325	94	511	58	1	664	11	11	55	1	78	7	406	15	4	432	1499
07:45 AM	175	56	34	0	265	141	528	59	7	735	29	22	94	1	146	13	388	12	9	422	1568
Total	649	193	164	0	1006	345	1869	218	18	2450	68	74	270	2	414	36	1427	38	17	1518	5388
08:00 AM	145	36	42	0	223	94	438	78	6	616	20	29	73	0	122	15	464	20	12	511	1472
08:15 AM	144	34	46	0	224	94	469	56	5	624	22	21	51	0	94	9	444	12	7	472	1414
08:30 AM	166	36	44	0	246	73	520	73	8	674	31	17	58	0	106	17	421	14	10	462	1488
08:45 AM	172	31	54	0	257	94	493	58	9	654	31	19	58	0	108	8	343	9	11	371	1390
Total	627	137	186	0	950	355	1920	265	28	2568	104	86	240	0	430	49	1672	55	40	1816	5764
Grand Total	1276	330	350	0	1956	700	3789	483	46	5018	172	160	510	2	844	85	3099	93	57	3334	11152
Apprch %	65.2	16.9	17.9	0		13.9	75.5	9.6	0.9		20.4	19	60.4	0.2		2.5	93	2.8	1.7		
Total %	11.4	3	3.1	0	17.5	6.3	34	4.3	0.4	45	1.5	1.4	4.6	0	7.6	0.8	27.8	0.8	0.5	29.9	

	Westview Parkway Southbound					Mira Mesa Boulevard Westbound					Westview Parkway Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**190**	**82**	**53**	0	**325**	94	511	58	1	664	11	11	55	**1**	78	7	406	15	4	432	1499
07:45 AM	175	56	34	0	265	**141**	**528**	59	**7**	**735**	**29**	22	**94**	1	**146**	13	388	12	9	422	**1568**
08:00 AM	145	36	42	0	223	94	438	**78**	6	616	20	**29**	73	0	122	**15**	**464**	**20**	**12**	**511**	1472
08:15 AM	144	34	46	0	224	94	469	56	5	624	22	21	51	0	94	9	444	12	7	472	1414
Total Volume	654	208	175	0	1037	423	1946	251	19	2639	82	83	273	2	440	44	1702	59	32	1837	5953
% App. Total	63.1	20.1	16.9	0		16	73.7	9.5	0.7		18.6	18.9	62	0.5		2.4	92.7	3.2	1.7		
PHF	.861	.634	.825	.000	.798	.750	.921	.804	.679	.898	.707	.716	.726	.500	.753	.733	.917	.738	.667	.899	.949

Counts Unlimited, Inc.
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City of San Diego
N/S: Westview Parkway
E/W: Mira Mesa Boulevard
Weather: Clear

File Name : 02_SDG_Wv_MM AM
Site Code : 05726228
Start Date : 3/10/2026



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM					07:45 AM					07:45 AM					07:45 AM				
+0 mins.	**190**	**82**	**53**	0	**325**	**141**	**528**	59	7	**735**	29	22	**94**	**1**	**146**	13	388	12	9	422
+15 mins.	175	56	34	0	265	94	438	**78**	6	616	20	**29**	73	0	122	15	**464**	**20**	**12**	**511**
+30 mins.	145	36	42	0	223	94	469	56	5	624	22	21	51	0	94	9	444	12	7	472
+45 mins.	144	34	46	0	224	73	520	73	**8**	674	**31**	17	58	0	106	**17**	421	14	10	462
Total Volume	654	208	175	0	1037	402	1955	266	26	2649	102	89	276	1	468	54	1717	58	38	1867
% App. Total	63.1	20.1	16.9	0		15.2	73.8	10	1		21.8	19	59	0.2		2.9	92	3.1	2	
PHF	.861	.634	.825	.000	.798	.713	.926	.853	.813	.901	.823	.767	.734	.250	.801	.794	.925	.725	.792	.913

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City of San Diego
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Weather: Clear

File Name : 02_SDG_Wv_MM PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

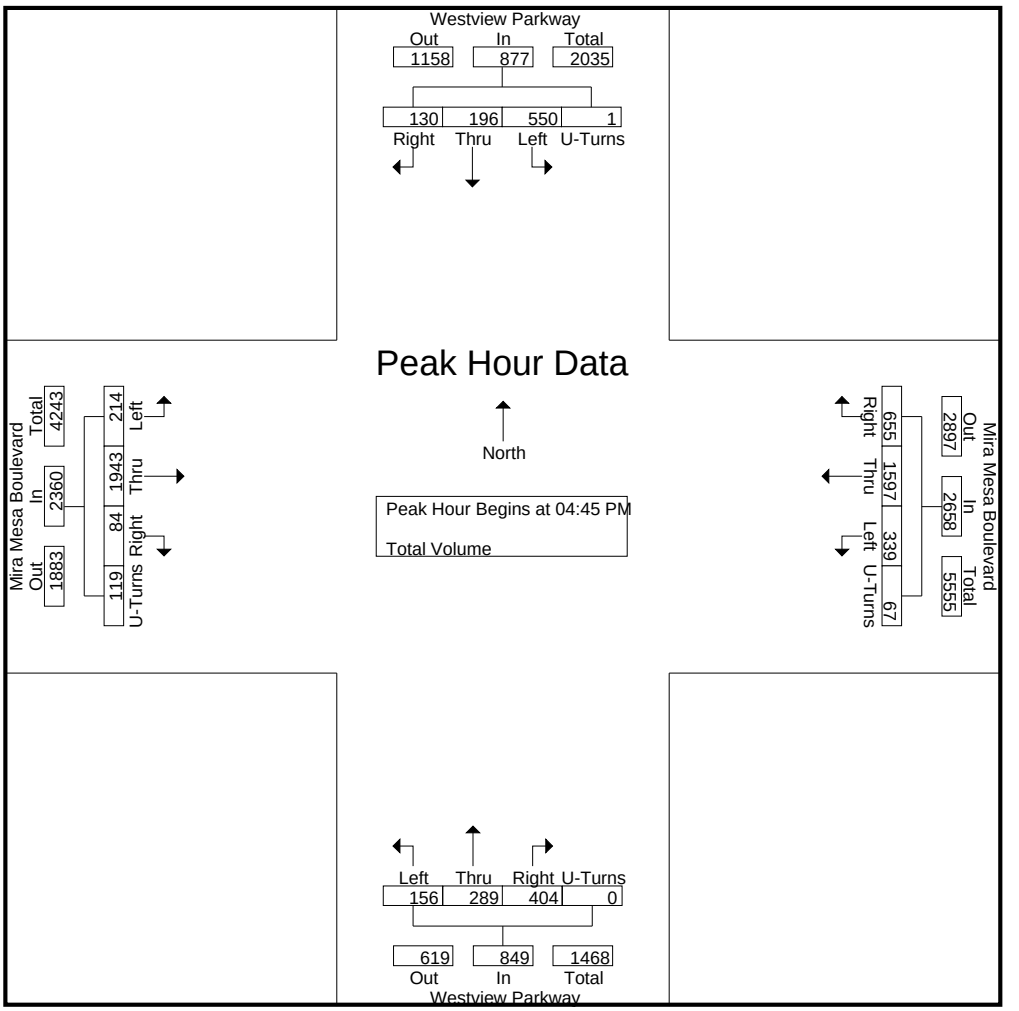
	Westview Parkway Southbound					Mira Mesa Boulevard Westbound					Westview Parkway Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	135	45	30	0	210	99	350	156	8	613	43	65	111	0	219	41	470	18	28	557	1599
04:15 PM	124	42	22	0	188	97	362	138	5	602	51	70	96	0	217	40	471	12	24	547	1554
04:30 PM	124	34	16	0	174	87	323	133	12	555	64	94	95	0	253	59	547	28	34	668	1650
04:45 PM	119	42	33	0	194	91	405	168	13	677	33	68	103	0	204	54	524	24	31	633	1708
Total	502	163	101	0	766	374	1440	595	38	2447	191	297	405	0	893	194	2012	82	117	2405	6511
05:00 PM	152	57	37	0	246	84	368	172	21	645	38	67	101	0	206	34	476	23	30	563	1660
05:15 PM	156	48	28	1	233	75	374	155	13	617	45	84	115	0	244	63	441	19	28	551	1645
05:30 PM	123	49	32	0	204	89	450	160	20	719	40	70	85	0	195	63	502	18	30	613	1731
05:45 PM	128	50	32	1	211	80	447	153	30	710	45	68	73	0	186	54	489	26	27	596	1703
Total	559	204	129	2	894	328	1639	640	84	2691	168	289	374	0	831	214	1908	86	115	2323	6739
Grand Total	1061	367	230	2	1660	702	3079	1235	122	5138	359	586	779	0	1724	408	3920	168	232	4728	13250
Apprch %	63.9	22.1	13.9	0.1		13.7	59.9	24	2.4		20.8	34	45.2	0		8.6	82.9	3.6	4.9		
Total %	8	2.8	1.7	0	12.5	5.3	23.2	9.3	0.9	38.8	2.7	4.4	5.9	0	13	3.1	29.6	1.3	1.8	35.7	

	Westview Parkway Southbound					Mira Mesa Boulevard Westbound					Westview Parkway Northbound					Mira Mesa Boulevard Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	119	42	33	0	194	**91**	405	168	13	677	33	68	103	0	204	54	**524**	**24**	**31**	**633**	1708
05:00 PM	152	**57**	**37**	0	**246**	84	368	**172**	**21**	645	38	67	101	0	206	34	476	23	30	563	1660
05:15 PM	**156**	48	28	**1**	233	75	374	155	13	617	**45**	**84**	**115**	0	**244**	**63**	441	19	28	551	1645
05:30 PM	123	49	32	0	204	89	**450**	160	20	**719**	40	70	85	0	195	63	502	18	30	613	**1731**
Total Volume	550	196	130	1	877	339	1597	655	67	2658	156	289	404	0	849	214	1943	84	119	2360	6744
% App. Total	62.7	22.3	14.8	0.1		12.8	60.1	24.6	2.5		18.4	34	47.6	0		9.1	82.3	3.6	5		
PHF	.881	.860	.878	.250	.891	.931	.887	.952	.798	.924	.867	.860	.878	.000	.870	.849	.927	.875	.960	.932	.974

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City of San Diego
N/S: Westview Parkway
E/W: Mira Mesa Boulevard
Weather: Clear

File Name : 02_SDG_Wv_MM PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM					05:00 PM					04:30 PM					04:30 PM				
+0 mins.	152	**57**	**37**	0	**246**	84	368	**172**	21	645	**64**	**94**	95	0	**253**	59	**547**	**28**	**34**	**668**
+15 mins.	**156**	48	28	**1**	233	75	374	155	13	617	33	68	103	0	204	54	524	24	31	633
+30 mins.	123	49	32	0	204	**89**	**450**	160	20	**719**	38	67	101	0	206	34	476	23	30	563
+45 mins.	128	50	32	1	211	80	447	153	**30**	710	45	84	**115**	0	244	**63**	441	19	28	551
Total Volume	559	204	129	2	894	328	1639	640	84	2691	180	313	414	0	907	210	1988	94	123	2415
% App. Total	62.5	22.8	14.4	0.2		12.2	60.9	23.8	3.1		19.8	34.5	45.6	0		8.7	82.3	3.9	5.1	
PHF	.896	.895	.872	.500	.909	.921	.911	.930	.700	.936	.703	.832	.900	.000	.896	.833	.909	.839	.904	.904

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City of San Diego
N/S: Black Mountain Road
E/W: Hillery Drive
Weather: Clear

File Name : 03_SDG_BMtn_Hil AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

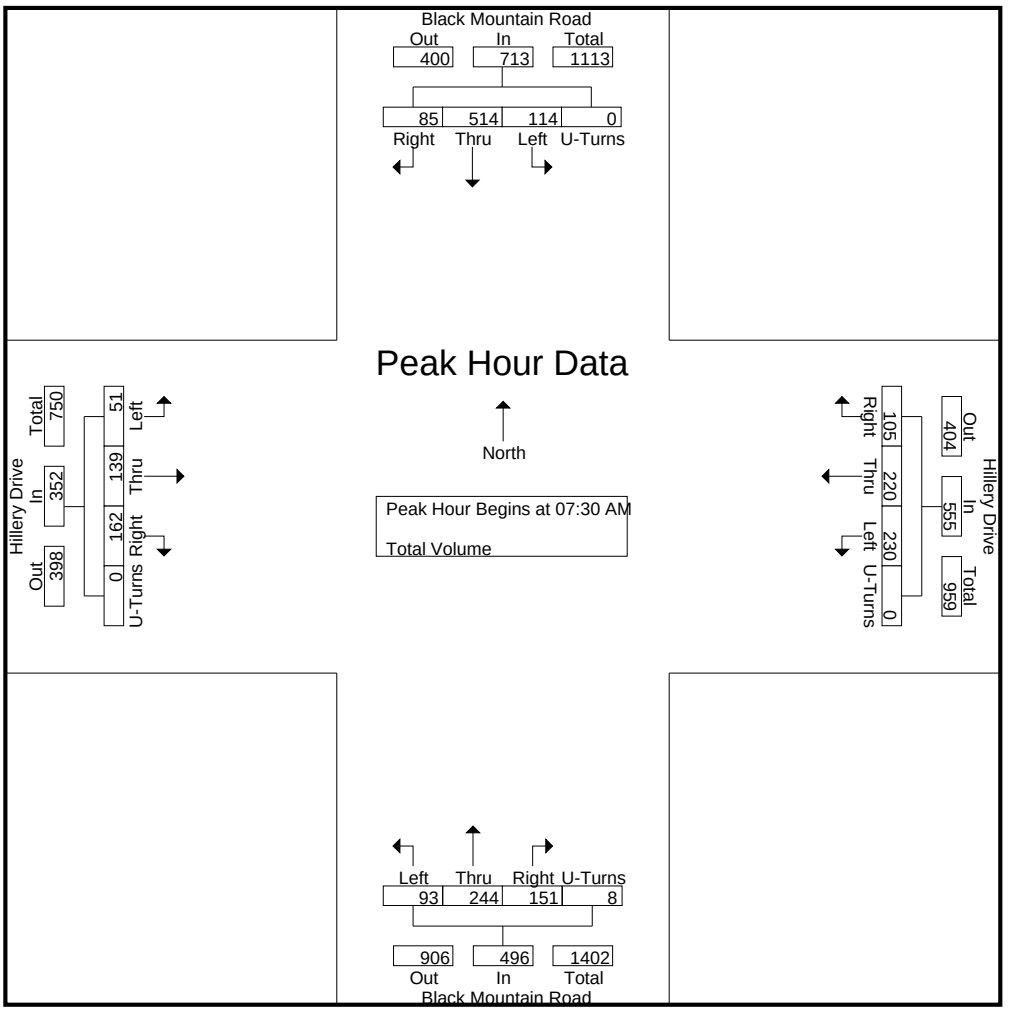
	Black Mountain Road Southbound					Hillery Drive Westbound					Black Mountain Road Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	8	46	9	0	63	38	51	21	0	110	18	30	21	2	71	5	28	19	0	52	296
07:15 AM	18	65	16	0	99	43	65	19	0	127	28	48	19	0	95	6	28	18	0	52	373
07:30 AM	27	145	28	0	200	67	53	30	0	150	32	62	34	5	133	13	30	55	0	98	581
07:45 AM	38	155	14	0	207	75	41	28	0	144	21	78	53	1	153	24	31	50	0	105	609
Total	91	411	67	0	569	223	210	98	0	531	99	218	127	8	452	48	117	142	0	307	1859
08:00 AM	26	97	20	0	143	50	56	28	0	134	21	55	34	2	112	8	38	27	0	73	462
08:15 AM	23	117	23	0	163	38	70	19	0	127	19	49	30	0	98	6	40	30	0	76	464
08:30 AM	17	116	13	0	146	55	45	14	0	114	24	53	20	1	98	15	48	31	0	94	452
08:45 AM	32	104	14	1	151	61	45	20	0	126	21	42	27	2	92	11	50	29	0	90	459
Total	98	434	70	1	603	204	216	81	0	501	85	199	111	5	400	40	176	117	0	333	1837
Grand Total	189	845	137	1	1172	427	426	179	0	1032	184	417	238	13	852	88	293	259	0	640	3696
Apprch %	16.1	72.1	11.7	0.1		41.4	41.3	17.3	0		21.6	48.9	27.9	1.5		13.8	45.8	40.5	0		
Total %	5.1	22.9	3.7	0	31.7	11.6	11.5	4.8	0	27.9	5	11.3	6.4	0.4	23.1	2.4	7.9	7	0	17.3	

	Black Mountain Road Southbound					Hillery Drive Westbound					Black Mountain Road Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	27	145	**28**	0	200	67	53	**30**	0	**150**	**32**	62	34	**5**	133	13	30	**55**	0	98	581
07:45 AM	**38**	**155**	14	0	**207**	**75**	41	28	0	144	21	**78**	**53**	1	**153**	**24**	31	50	0	**105**	**609**
08:00 AM	26	97	20	0	143	50	56	28	0	134	21	55	34	2	112	8	38	27	0	73	462
08:15 AM	23	117	23	0	163	38	**70**	19	0	127	19	49	30	0	98	6	**40**	30	0	76	464
Total Volume	114	514	85	0	713	230	220	105	0	555	93	244	151	8	496	51	139	162	0	352	2116
% App. Total	16	72.1	11.9	0		41.4	39.6	18.9	0		18.8	49.2	30.4	1.6		14.5	39.5	46	0		
PHF	.750	.829	.759	.000	.861	.767	.786	.875	.000	.925	.727	.782	.712	.400	.810	.531	.869	.736	.000	.838	.869

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City of San Diego
N/S: Black Mountain Road
E/W: Hillery Drive
Weather: Clear

File Name : 03_SDG_BMtn_Hil AM
Site Code : 05726228
Start Date : 3/10/2026



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM					07:15 AM					07:30 AM					07:30 AM				
+0 mins.	27	145	**28**	0	200	43	**65**	19	0	127	**32**	62	34	**5**	133	13	30	**55**	0	98
+15 mins.	**38**	**155**	14	0	**207**	67	53	**30**	0	**150**	21	**78**	**53**	1	**153**	**24**	31	50	0	**105**
+30 mins.	26	97	20	0	143	**75**	41	28	0	144	21	55	34	2	112	8	38	27	0	73
+45 mins.	23	117	23	0	163	50	56	28	0	134	19	49	30	0	98	6	**40**	30	0	76
Total Volume	114	514	85	0	713	235	215	105	0	555	93	244	151	8	496	51	139	162	0	352
% App. Total	16	72.1	11.9	0		42.3	38.7	18.9	0		18.8	49.2	30.4	1.6		14.5	39.5	46	0	
PHF	.750	.829	.759	.000	.861	.783	.827	.875	.000	.925	.727	.782	.712	.400	.810	.531	.869	.736	.000	.838

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City of San Diego
N/S: Black Mountain Road
E/W: Hillery Drive
Weather: Clear

File Name : 03_SDG_BMtn_Hil PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

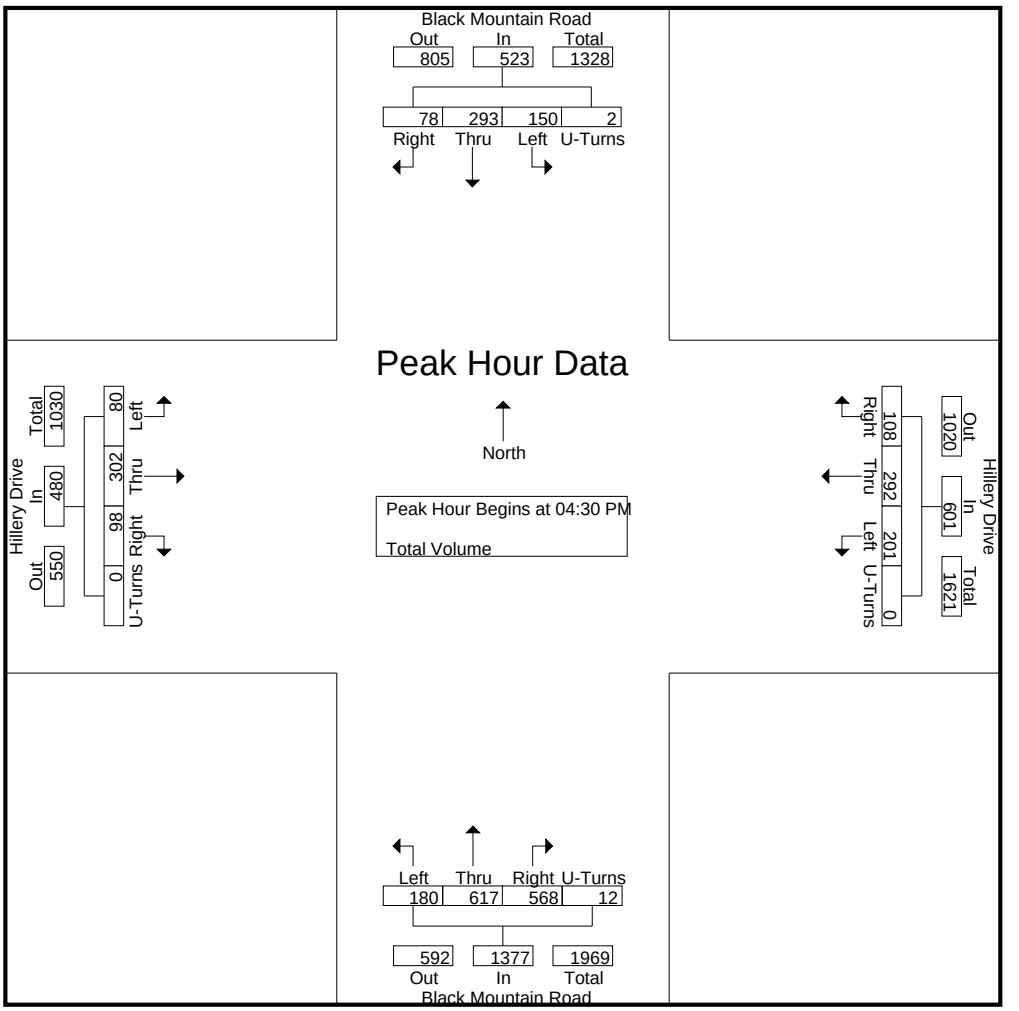
	Black Mountain Road Southbound					Hillery Drive Westbound					Black Mountain Road Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	25	68	17	0	110	43	57	19	0	119	48	162	116	1	327	15	74	29	0	118	674
04:15 PM	32	96	20	1	149	33	70	29	0	132	51	144	134	0	329	19	81	29	0	129	739
04:30 PM	28	55	26	0	109	51	88	28	0	167	52	157	142	5	356	15	71	27	0	113	745
04:45 PM	37	76	20	0	133	44	54	25	0	123	40	156	150	5	351	24	73	23	0	120	727
Total	122	295	83	1	501	171	269	101	0	541	191	619	542	11	1363	73	299	108	0	480	2885
05:00 PM	44	78	18	2	142	48	87	28	0	163	35	154	123	2	314	21	89	24	0	134	753
05:15 PM	41	84	14	0	139	58	63	27	0	148	53	150	153	0	356	20	69	24	0	113	756
05:30 PM	32	55	10	0	97	49	75	22	0	146	49	135	137	1	322	22	85	19	0	126	691
05:45 PM	38	89	15	0	142	39	60	19	0	118	42	124	134	3	303	26	76	21	0	123	686
Total	155	306	57	2	520	194	285	96	0	575	179	563	547	6	1295	89	319	88	0	496	2886
Grand Total	277	601	140	3	1021	365	554	197	0	1116	370	1182	1089	17	2658	162	618	196	0	976	5771
Apprch %	27.1	58.9	13.7	0.3		32.7	49.6	17.7	0		13.9	44.5	41	0.6		16.6	63.3	20.1	0		
Total %	4.8	10.4	2.4	0.1	17.7	6.3	9.6	3.4	0	19.3	6.4	20.5	18.9	0.3	46.1	2.8	10.7	3.4	0	16.9	

	Black Mountain Road Southbound					Hillery Drive Westbound					Black Mountain Road Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	28	55	**26**	0	109	51	**88**	**28**	0	**167**	52	**157**	142	**5**	**356**	15	71	**27**	0	113	745
04:45 PM	37	76	20	0	133	44	54	25	0	123	40	156	150	5	351	**24**	73	23	0	120	727
05:00 PM	**44**	78	18	**2**	**142**	48	87	28	0	163	35	154	123	2	314	21	**89**	24	0	**134**	753
05:15 PM	41	**84**	14	0	139	**58**	63	27	0	148	**53**	150	**153**	0	356	20	69	24	0	113	**756**
Total Volume	150	293	78	2	523	201	292	108	0	601	180	617	568	12	1377	80	302	98	0	480	2981
% App. Total	28.7	56	14.9	0.4		33.4	48.6	18	0		13.1	44.8	41.2	0.9		16.7	62.9	20.4	0		
PHF	.852	.872	.750	.250	.921	.866	.830	.964	.000	.900	.849	.982	.928	.600	.967	.833	.848	.907	.000	.896	.986

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File Name : 03_SDG_BMtn_Hil PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM					04:30 PM					04:30 PM					04:15 PM				
+0 mins.	32	**96**	20	1	**149**	51	**88**	**28**	0	**167**	52	**157**	142	**5**	**356**	19	81	**29**	0	129
+15 mins.	28	55	**26**	0	109	44	54	25	0	123	40	156	150	5	351	15	71	27	0	113
+30 mins.	37	76	20	0	133	48	87	28	0	163	35	154	123	2	314	**24**	73	23	0	120
+45 mins.	**44**	78	18	**2**	142	**58**	63	27	0	148	**53**	150	**153**	0	356	21	**89**	24	0	**134**
Total Volume	141	305	84	3	533	201	292	108	0	601	180	617	568	12	1377	79	314	103	0	496
% App. Total	26.5	57.2	15.8	0.6		33.4	48.6	18	0		13.1	44.8	41.2	0.9		15.9	63.3	20.8	0	
PHF	.801	.794	.808	.375	.894	.866	.830	.964	.000	.900	.849	.982	.928	.600	.967	.823	.882	.888	.000	.925

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City of San Diego
N/S: Westview Parkway
E/W: Hillery Drive
Weather: Clear

File Name : 04_SDG_Wv_Hil AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

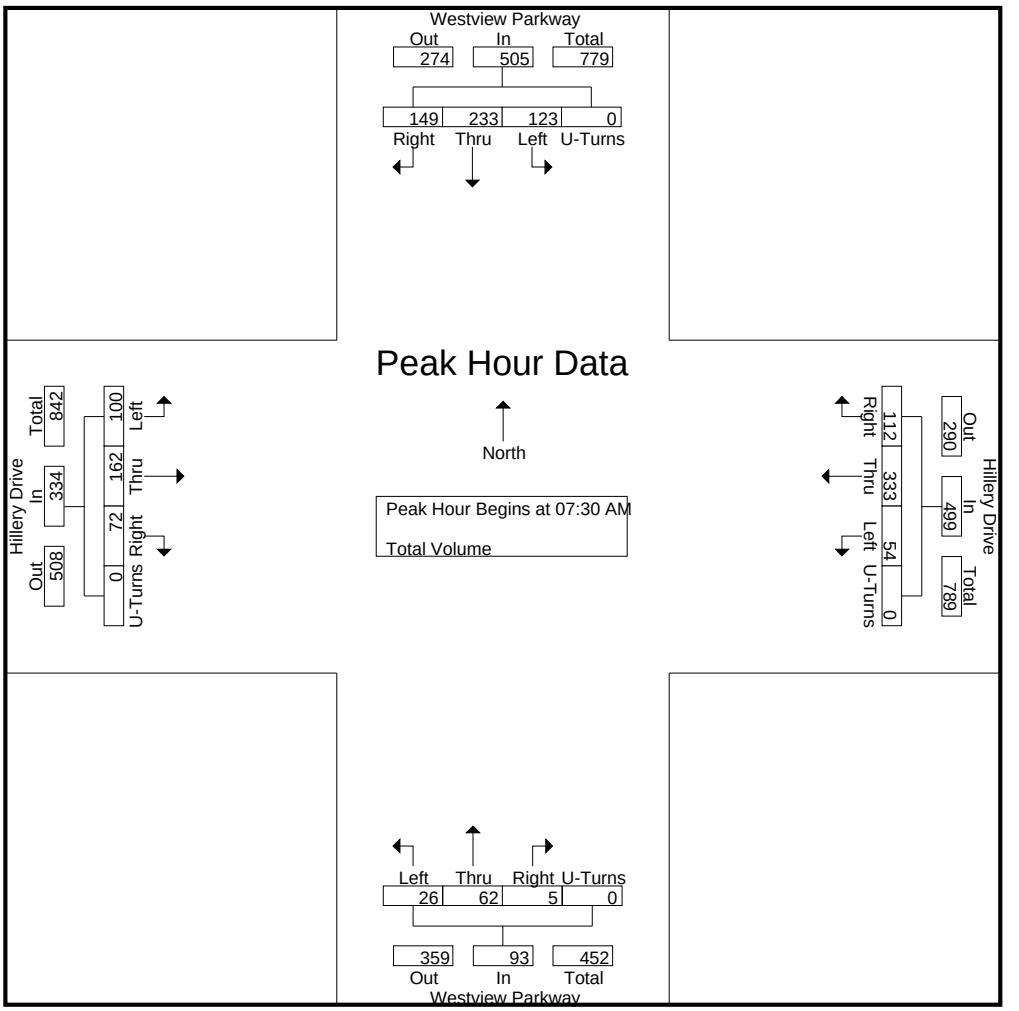
	Westview Parkway Southbound					Hillery Drive Westbound					Westview Parkway Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	9	9	25	0	43	6	60	24	0	90	3	6	2	0	11	17	24	6	1	48	192
07:15 AM	23	23	13	0	59	7	77	32	0	116	4	4	0	0	8	14	31	14	0	59	242
07:30 AM	35	49	53	0	137	12	110	24	0	146	7	10	3	0	20	13	34	15	0	62	365
07:45 AM	33	81	33	0	147	21	85	37	0	143	5	21	1	0	27	35	42	19	0	96	413
Total	100	162	124	0	386	46	332	117	0	495	19	41	6	0	66	79	131	54	1	265	1212
08:00 AM	25	61	35	0	121	10	73	30	0	113	9	22	0	0	31	34	42	21	0	97	362
08:15 AM	30	42	28	0	100	11	65	21	0	97	5	9	1	0	15	18	44	17	0	79	291
08:30 AM	26	17	31	0	74	14	58	20	0	92	7	7	4	0	18	22	32	9	1	64	248
08:45 AM	21	30	23	0	74	11	71	20	0	102	8	13	1	0	22	20	26	18	0	64	262
Total	102	150	117	0	369	46	267	91	0	404	29	51	6	0	86	94	144	65	1	304	1163
Grand Total	202	312	241	0	755	92	599	208	0	899	48	92	12	0	152	173	275	119	2	569	2375
Apprch %	26.8	41.3	31.9	0		10.2	66.6	23.1	0		31.6	60.5	7.9	0		30.4	48.3	20.9	0.4		
Total %	8.5	13.1	10.1	0	31.8	3.9	25.2	8.8	0	37.9	2	3.9	0.5	0	6.4	7.3	11.6	5	0.1	24	

	Westview Parkway Southbound					Hillery Drive Westbound					Westview Parkway Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**35**	49	**53**	0	137	12	**110**	24	0	**146**	7	10	**3**	0	20	13	34	15	0	62	365
07:45 AM	33	**81**	33	0	**147**	**21**	85	**37**	0	143	5	21	1	0	27	**35**	42	19	0	96	**413**
08:00 AM	25	61	35	0	121	10	73	30	0	113	**9**	**22**	0	0	**31**	34	42	**21**	0	**97**	362
08:15 AM	30	42	28	0	100	11	65	21	0	97	5	9	1	0	15	18	**44**	17	0	79	291
Total Volume	123	233	149	0	505	54	333	112	0	499	26	62	5	0	93	100	162	72	0	334	1431
% App. Total	24.4	46.1	29.5	0		10.8	66.7	22.4	0		28	66.7	5.4	0		29.9	48.5	21.6	0		
PHF	.879	.719	.703	.000	.859	.643	.757	.757	.000	.854	.722	.705	.417	.000	.750	.714	.920	.857	.000	.861	.866

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City of San Diego
N/S: Westview Parkway
E/W: Hillery Drive
Weather: Clear

File Name : 04_SDG_Wv_Hil AM
Site Code : 05726228
Start Date : 3/10/2026
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM					07:15 AM					07:30 AM					07:45 AM				
+0 mins.	**35**	49	**53**	0	137	7	77	32	0	116	7	10	**3**	0	20	**35**	42	19	0	96
+15 mins.	33	**81**	33	0	**147**	12	**110**	24	0	**146**	5	21	1	0	27	34	42	**21**	0	**97**
+30 mins.	25	61	35	0	121	**21**	85	**37**	0	143	**9**	**22**	0	0	**31**	18	**44**	17	0	79
+45 mins.	30	42	28	0	100	10	73	30	0	113	5	9	1	0	15	22	32	9	**1**	64
Total Volume	123	233	149	0	505	50	345	123	0	518	26	62	5	0	93	109	160	66	1	336
% App. Total	24.4	46.1	29.5	0		9.7	66.6	23.7	0		28	66.7	5.4	0		32.4	47.6	19.6	0.3	
PHF	.879	.719	.703	.000	.859	.595	.784	.831	.000	.887	.722	.705	.417	.000	.750	.779	.909	.786	.250	.866

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City of San Diego
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File Name : 04_SDG_Wv_Hil PM
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Start Date : 3/10/2026
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Groups Printed- Total Volume

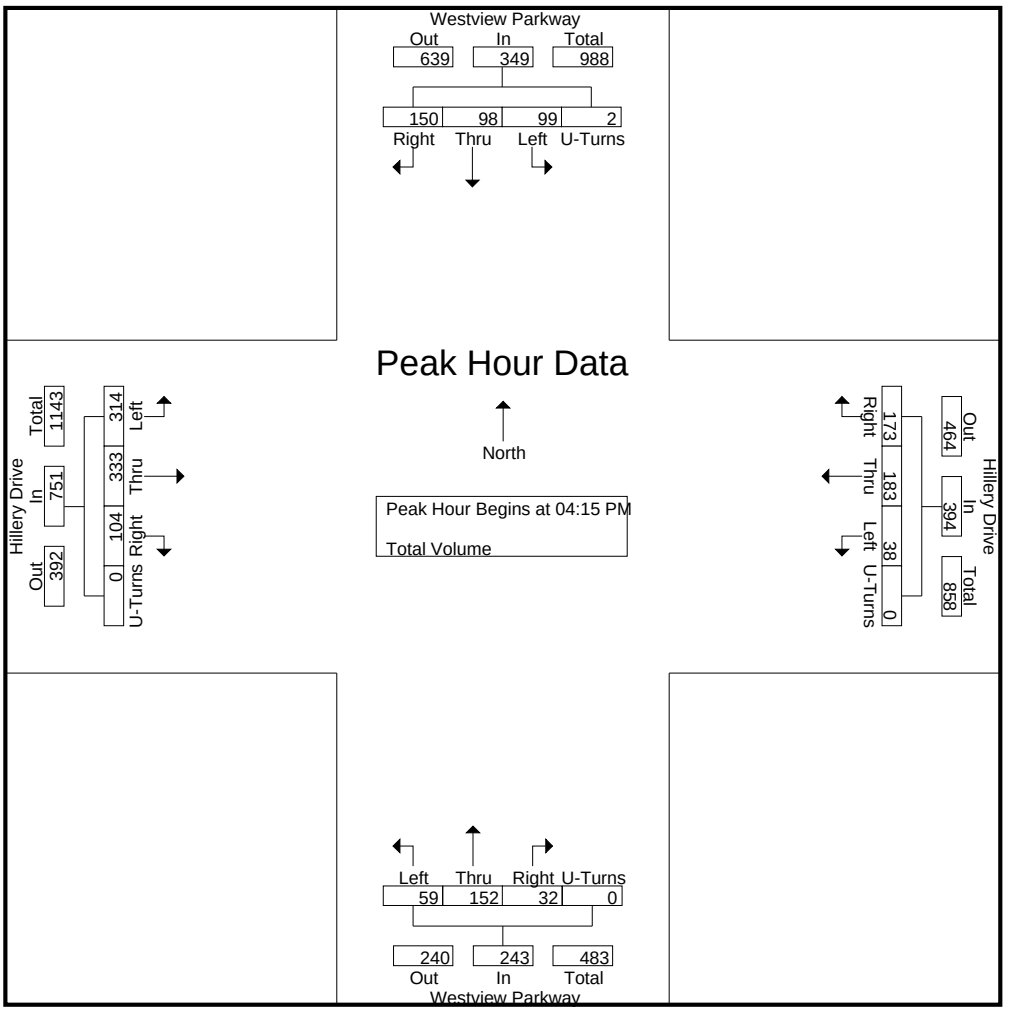
	Westview Parkway Southbound					Hillery Drive Westbound					Westview Parkway Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	24	16	41	0	81	5	45	46	0	96	9	28	6	0	43	65	93	7	0	165	385
04:15 PM	35	13	34	2	84	11	47	39	0	97	11	41	8	0	60	83	80	11	0	174	415
04:30 PM	16	23	36	0	75	10	40	45	0	95	14	44	7	0	65	82	88	26	0	196	431
04:45 PM	23	38	43	0	104	7	50	47	0	104	21	29	3	0	53	62	77	39	0	178	439
Total	98	90	154	2	344	33	182	177	0	392	55	142	24	0	221	292	338	83	0	713	1670
05:00 PM	25	24	37	0	86	10	46	42	0	98	13	38	14	0	65	87	88	28	0	203	452
05:15 PM	31	14	40	0	85	4	55	33	0	92	9	34	8	0	51	57	85	14	0	156	384
05:30 PM	21	17	34	0	72	7	42	35	0	84	9	14	8	0	31	81	80	5	0	166	353
05:45 PM	23	11	40	0	74	8	57	36	0	101	6	13	7	0	26	76	85	12	0	173	374
Total	100	66	151	0	317	29	200	146	0	375	37	99	37	0	173	301	338	59	0	698	1563
Grand Total	198	156	305	2	661	62	382	323	0	767	92	241	61	0	394	593	676	142	0	1411	3233
Apprch %	30	23.6	46.1	0.3		8.1	49.8	42.1	0		23.4	61.2	15.5	0		42	47.9	10.1	0		
Total %	6.1	4.8	9.4	0.1	20.4	1.9	11.8	10	0	23.7	2.8	7.5	1.9	0	12.2	18.3	20.9	4.4	0	43.6	

	Westview Parkway Southbound					Hillery Drive Westbound					Westview Parkway Northbound					Hillery Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	**35**	13	34	**2**	84	**11**	47	39	0	97	11	41	8	0	60	83	80	11	0	174	415
04:30 PM	16	23	36	0	75	10	40	45	0	95	14	**44**	7	0	**65**	82	**88**	26	0	196	431
04:45 PM	23	**38**	**43**	0	**104**	7	**50**	**47**	0	**104**	**21**	29	3	0	53	62	77	**39**	0	178	439
05:00 PM	25	24	37	0	86	10	46	42	0	98	13	38	**14**	0	65	**87**	88	28	0	**203**	**452**
Total Volume	99	98	150	2	349	38	183	173	0	394	59	152	32	0	243	314	333	104	0	751	1737
% App. Total	28.4	28.1	43	0.6		9.6	46.4	43.9	0		24.3	62.6	13.2	0		41.8	44.3	13.8	0		
PHF	.707	.645	.872	.250	.839	.864	.915	.920	.000	.947	.702	.864	.571	.000	.935	.902	.946	.667	.000	.925	.961

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Weather: Clear

File Name : 04_SDG_Wv_Hil PM
Site Code : 05726228
Start Date : 3/10/2026
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM					04:15 PM					04:15 PM					04:15 PM				
+0 mins.	16	23	36	0	75	**11**	47	39	0	97	11	41	8	0	60	83	80	11	0	174
+15 mins.	23	**38**	**43**	0	**104**	10	40	45	0	95	14	**44**	7	0	**65**	82	**88**	26	0	196
+30 mins.	25	24	37	0	86	7	**50**	**47**	0	**104**	**21**	29	3	0	53	62	77	**39**	0	178
+45 mins.	**31**	14	40	0	85	10	46	42	0	98	13	38	**14**	0	65	**87**	88	28	0	**203**
Total Volume	95	99	156	0	350	38	183	173	0	394	59	152	32	0	243	314	333	104	0	751
% App. Total	27.1	28.3	44.6	0		9.6	46.4	43.9	0		24.3	62.6	13.2	0		41.8	44.3	13.8	0	
PHF	.766	.651	.907	.000	.841	.864	.915	.920	.000	.947	.702	.864	.571	.000	.935	.902	.946	.667	.000	.925

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City of San Diego
N/S: N Campus Drive
E/W: Hillery Drive
Weather: Clear

File Name : 05_SDG_Cam_Hil AM
Site Code : 05726228
Start Date : 3/10/2026
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Groups Printed- Total Volume

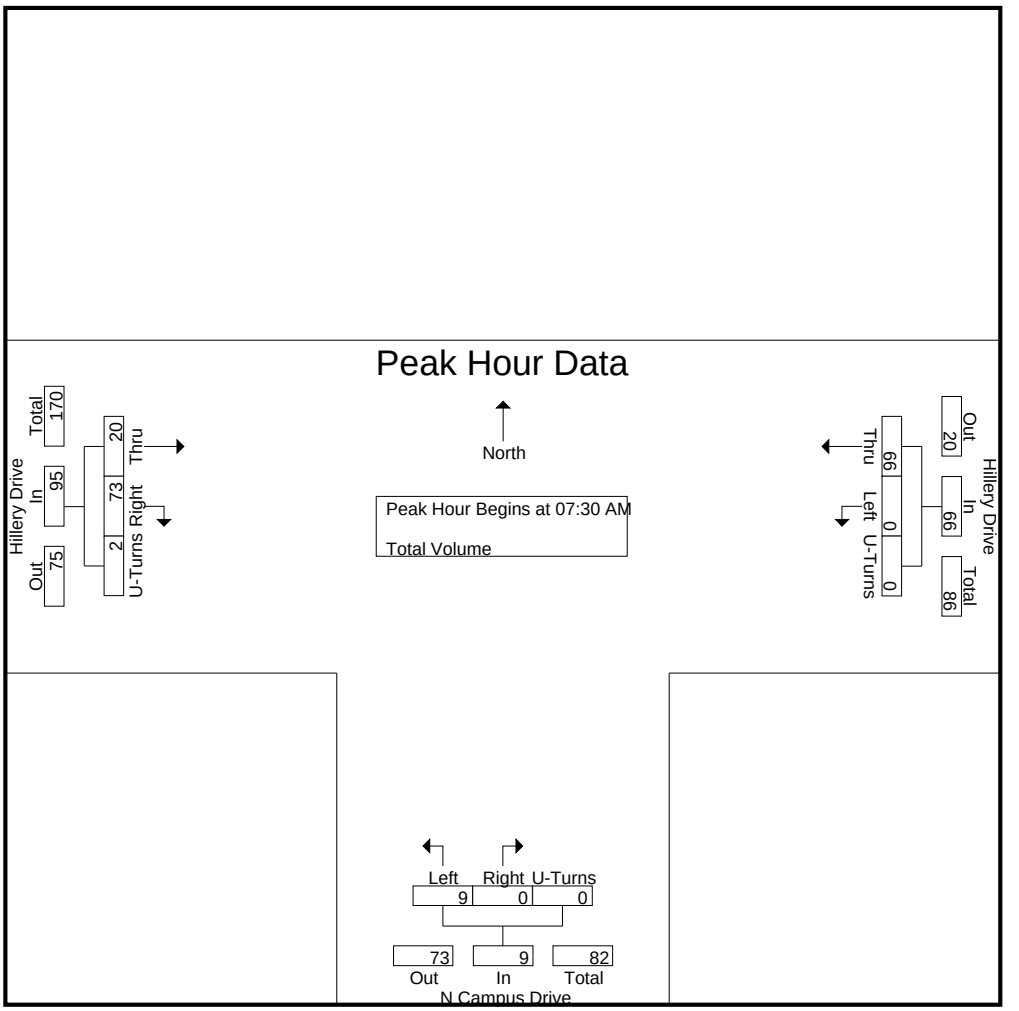
	Hillery Drive Westbound				N Campus Drive Northbound				Hillery Drive Eastbound				
Start Time	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	0	13	0	13	0	0	0	0	3	3	1	7	20
07:15 AM	0	21	0	21	1	0	0	1	3	6	1	10	32
07:30 AM	0	22	0	22	2	0	0	2	3	11	1	15	39
07:45 AM	0	19	0	19	4	0	0	4	4	24	1	29	52
Total	0	75	0	75	7	0	0	7	13	44	4	61	143
08:00 AM	0	11	0	11	2	0	0	2	5	17	0	22	35
08:15 AM	0	14	0	14	1	0	0	1	8	21	0	29	44
08:30 AM	0	7	0	7	4	0	0	4	0	17	0	17	28
08:45 AM	0	8	0	8	2	0	1	3	3	16	1	20	31
Total	0	40	0	40	9	0	1	10	16	71	1	88	138
Grand Total	0	115	0	115	16	0	1	17	29	115	5	149	281
Apprch %	0	100	0		94.1	0	5.9		19.5	77.2	3.4		
Total %	0	40.9	0	40.9	5.7	0	0.4	6	10.3	40.9	1.8	53	

	Hillery Drive Westbound				N Campus Drive Northbound				Hillery Drive Eastbound				
Start Time	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 07:30 AM													
07:30 AM	0	**22**	0	**22**	2	0	0	2	3	11	**1**	15	39
07:45 AM	0	19	0	19	**4**	0	0	**4**	4	**24**	1	**29**	**52**
08:00 AM	0	11	0	11	2	0	0	2	5	17	0	22	35
08:15 AM	0	14	0	14	1	0	0	1	**8**	21	0	29	44
Total Volume	0	66	0	66	9	0	0	9	20	73	2	95	170
% App. Total	0	100	0		100	0	0		21.1	76.8	2.1		
PHF	.000	.750	.000	.750	.563	.000	.000	.563	.625	.760	.500	.819	.817

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City of San Diego
N/S: N Campus Drive
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Weather: Clear

File Name : 05_SDG_Cam_Hil AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM			
+0 mins.	0	13	0	13	**4**	0	0	**4**	4	**24**	**1**	**29**
+15 mins.	0	21	0	21	2	0	0	2	5	17	0	22
+30 mins.	0	**22**	0	**22**	1	0	0	1	**8**	21	0	29
+45 mins.	0	19	0	19	4	0	0	4	0	17	0	17
Total Volume	0	75	0	75	11	0	0	11	17	79	1	97
% App. Total	0	100	0		100	0	0		17.5	81.4	1	
PHF	.000	.852	.000	.852	.688	.000	.000	.688	.531	.823	.250	.836

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N/S: N Campus Drive
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File Name : 05_SDG_Cam_Hil PM
Site Code : 05726228
Start Date : 3/10/2026
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Groups Printed- Total Volume

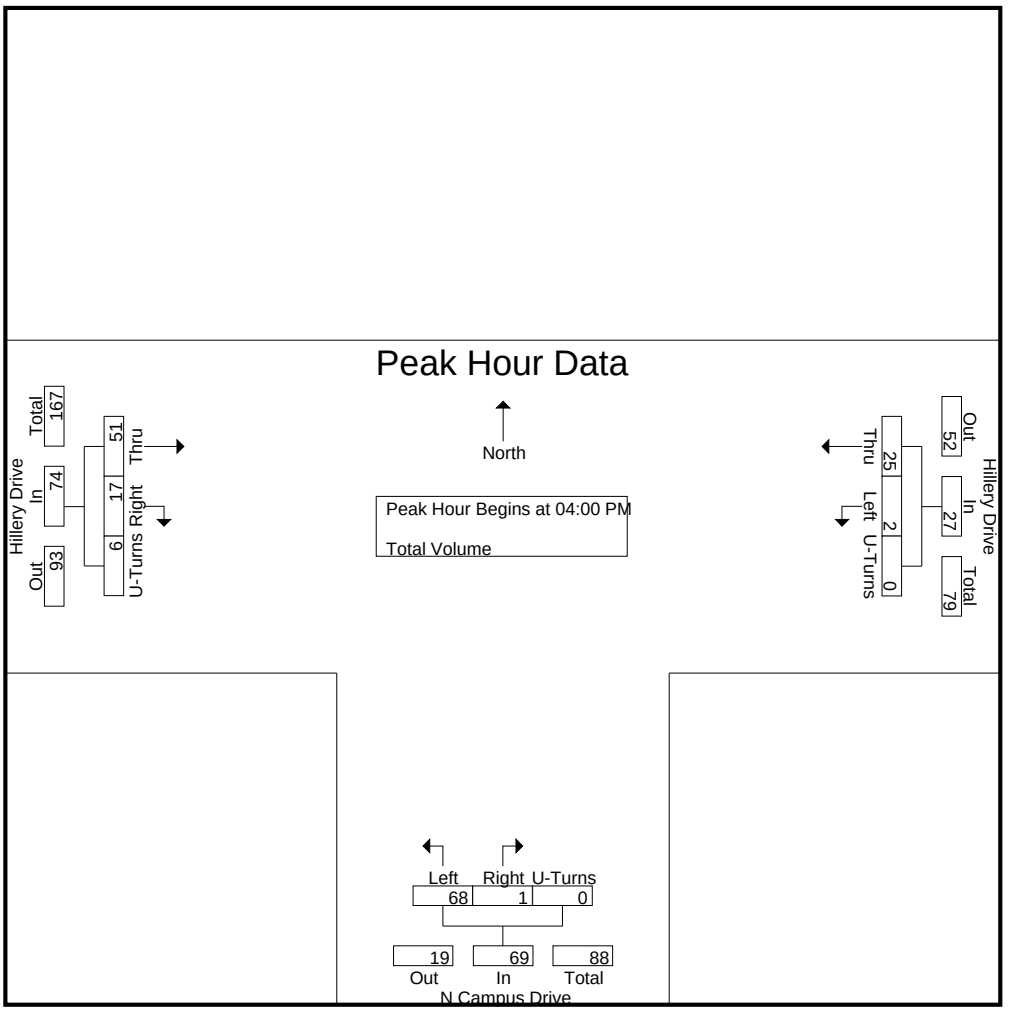
	Hillery Drive Westbound				N Campus Drive Northbound				Hillery Drive Eastbound				
Start Time	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	0	7	0	7	27	1	0	28	11	8	2	21	56
04:15 PM	1	4	0	5	8	0	0	8	19	2	2	23	36
04:30 PM	1	6	0	7	18	0	0	18	9	4	1	14	39
04:45 PM	0	8	0	8	15	0	0	15	12	3	1	16	39
Total	2	25	0	27	68	1	0	69	51	17	6	74	170
05:00 PM	0	6	0	6	11	0	0	11	21	4	3	28	45
05:15 PM	0	10	0	10	7	1	0	8	11	4	4	19	37
05:30 PM	0	6	0	6	8	1	0	9	14	7	1	22	37
05:45 PM	0	5	0	5	7	2	0	9	18	9	1	28	42
Total	0	27	0	27	33	4	0	37	64	24	9	97	161
Grand Total	2	52	0	54	101	5	0	106	115	41	15	171	331
Apprch %	3.7	96.3	0		95.3	4.7	0		67.3	24	8.8		
Total %	0.6	15.7	0	16.3	30.5	1.5	0	32	34.7	12.4	4.5	51.7	

	Hillery Drive Westbound				N Campus Drive Northbound				Hillery Drive Eastbound				
Start Time	Left	Thru	U-Turns	App. Total	Left	Right	U-Turns	App. Total	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:00 PM													
04:00 PM	0	7	0	7	**27**	**1**	0	**28**	11	**8**	**2**	21	**56**
04:15 PM	**1**	4	0	5	8	0	0	8	**19**	2	2	**23**	36
04:30 PM	1	6	0	7	18	0	0	18	9	4	1	14	39
04:45 PM	0	**8**	0	**8**	15	0	0	15	12	3	1	16	39
Total Volume	2	25	0	27	68	1	0	69	51	17	6	74	170
% App. Total	7.4	92.6	0		98.6	1.4	0		68.9	23	8.1		
PHF	.500	.781	.000	.844	.630	.250	.000	.616	.671	.531	.750	.804	.759

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Site Code : 05726228
Start Date : 3/10/2026
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				05:00 PM			
+0 mins.	**1**	6	0	7	**27**	**1**	0	**28**	**21**	4	3	**28**
+15 mins.	0	8	0	8	8	0	0	8	11	4	**4**	19
+30 mins.	0	6	0	6	18	0	0	18	14	7	1	22
+45 mins.	0	**10**	0	**10**	15	0	0	15	18	**9**	1	28
Total Volume	1	30	0	31	68	1	0	69	64	24	9	97
% App. Total	3.2	96.8	0		98.6	1.4	0		66	24.7	9.3	
PHF	.250	.750	.000	.775	.630	.250	.000	.616	.762	.667	.563	.866

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City of San Diego
N/S: Black Mountain Road
E/W: Gold Coast Drive
Weather: Clear

File Name : 06_SDG_BMtn_GC AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

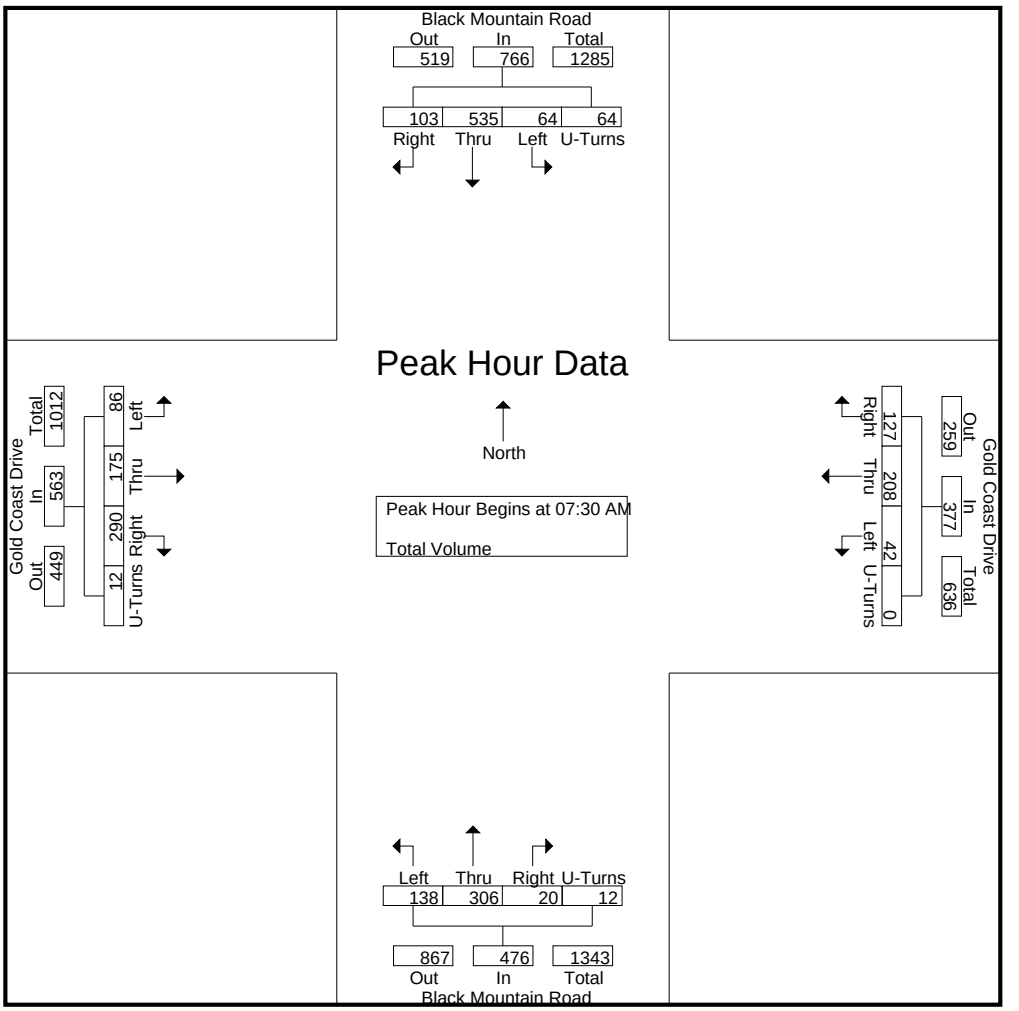
	Black Mountain Road Southbound					Gold Coast Drive Westbound					Black Mountain Road Northbound					Gold Coast Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
07:00 AM	6	80	10	2	98	4	31	21	0	56	13	44	2	1	60	11	24	43	6	84	298
07:15 AM	8	74	15	11	108	6	28	40	0	74	25	71	2	3	101	10	35	50	7	102	385
07:30 AM	26	131	34	19	210	16	67	42	0	125	41	83	5	2	131	17	58	78	0	153	619
07:45 AM	22	139	40	34	235	11	44	37	0	92	41	92	2	5	140	26	52	85	7	170	637
Total	62	424	99	66	651	37	170	140	0	347	120	290	11	11	432	64	169	256	20	509	1939
08:00 AM	10	144	17	6	177	8	48	26	0	82	34	66	7	2	109	20	32	59	1	112	480
08:15 AM	6	121	12	5	144	7	49	22	0	78	22	65	6	3	96	23	33	68	4	128	446
08:30 AM	19	125	10	0	154	9	42	31	0	82	21	62	6	1	90	21	34	52	2	109	435
08:45 AM	15	138	23	1	177	5	43	28	0	76	30	76	5	5	116	13	32	46	0	91	460
Total	50	528	62	12	652	29	182	107	0	318	107	269	24	11	411	77	131	225	7	440	1821
Grand Total	112	952	161	78	1303	66	352	247	0	665	227	559	35	22	843	141	300	481	27	949	3760
Apprch %	8.6	73.1	12.4	6		9.9	52.9	37.1	0		26.9	66.3	4.2	2.6		14.9	31.6	50.7	2.8		
Total %	3	25.3	4.3	2.1	34.7	1.8	9.4	6.6	0	17.7	6	14.9	0.9	0.6	22.4	3.8	8	12.8	0.7	25.2	

	Black Mountain Road Southbound					Gold Coast Drive Westbound					Black Mountain Road Northbound					Gold Coast Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	**26**	131	34	19	210	**16**	**67**	**42**	0	**125**	**41**	83	5	2	131	17	**58**	78	0	153	619
07:45 AM	22	139	**40**	**34**	**235**	11	44	37	0	92	41	**92**	2	**5**	**140**	**26**	52	**85**	**7**	**170**	**637**
08:00 AM	10	**144**	17	6	177	8	48	26	0	82	34	66	**7**	2	109	20	32	59	1	112	480
08:15 AM	6	121	12	5	144	7	49	22	0	78	22	65	6	3	96	23	33	68	4	128	446
Total Volume	64	535	103	64	766	42	208	127	0	377	138	306	20	12	476	86	175	290	12	563	2182
% App. Total	8.4	69.8	13.4	8.4		11.1	55.2	33.7	0		29	64.3	4.2	2.5		15.3	31.1	51.5	2.1		
PHF	.615	.929	.644	.471	.815	.656	.776	.756	.000	.754	.841	.832	.714	.600	.850	.827	.754	.853	.429	.828	.856

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File Name : 06_SDG_BMtn_GC AM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM					07:30 AM					07:15 AM					07:30 AM				
+0 mins.	**26**	131	34	19	210	**16**	**67**	**42**	0	**125**	25	71	2	3	101	17	**58**	78	0	153
+15 mins.	22	139	**40**	**34**	**235**	11	44	37	0	92	**41**	83	5	2	131	**26**	52	**85**	**7**	**170**
+30 mins.	10	**144**	17	6	177	8	48	26	0	82	41	**92**	2	**5**	**140**	20	32	59	1	112
+45 mins.	6	121	12	5	144	7	49	22	0	78	34	66	**7**	2	109	23	33	68	4	128
Total Volume	64	535	103	64	766	42	208	127	0	377	141	312	16	12	481	86	175	290	12	563
% App. Total	8.4	69.8	13.4	8.4		11.1	55.2	33.7	0		29.3	64.9	3.3	2.5		15.3	31.1	51.5	2.1	
PHF	.615	.929	.644	.471	.815	.656	.776	.756	.000	.754	.860	.848	.571	.600	.859	.827	.754	.853	.429	.828

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of San Diego
N/S: Black Mountain Road
E/W: Gold Coast Drive
Weather: Clear

File Name : 06_SDG_BMtn_GC PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 1

Groups Printed- Total Volume

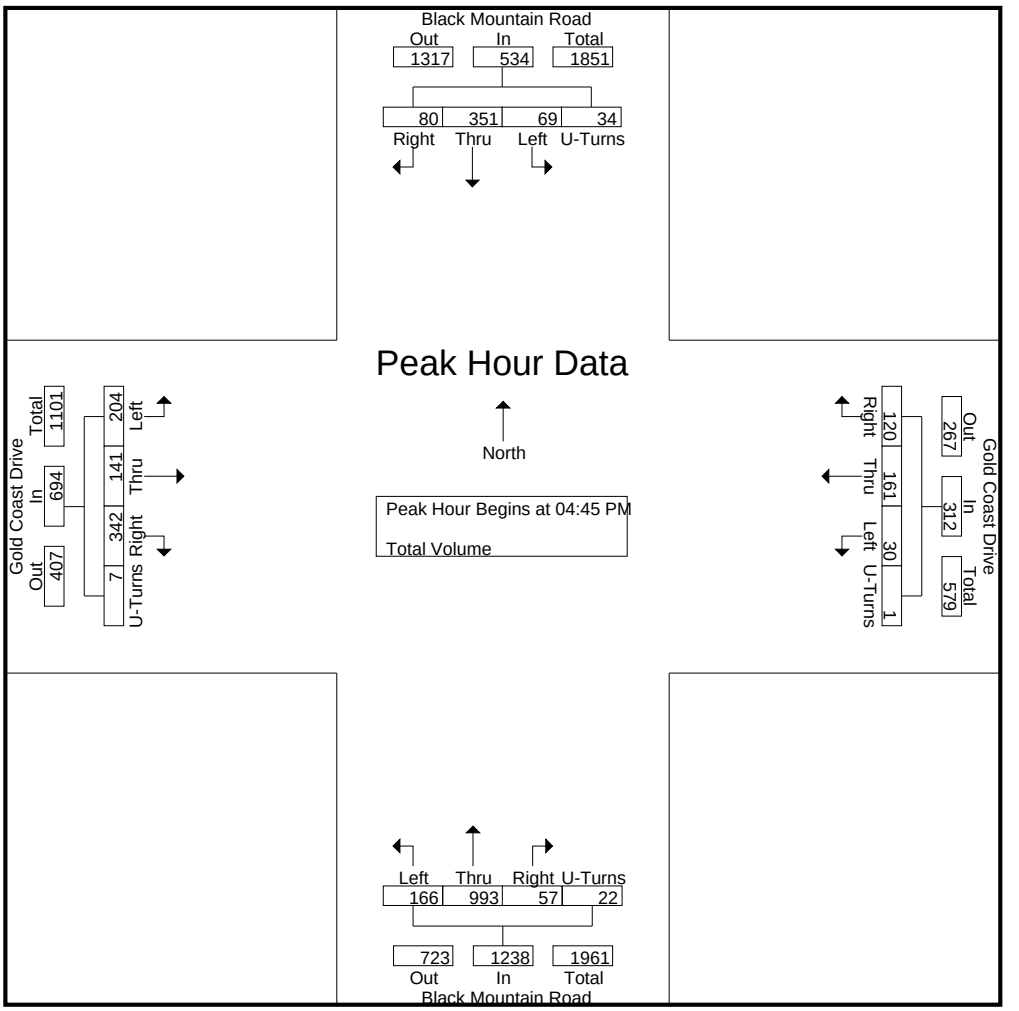
	Black Mountain Road Southbound					Gold Coast Drive Westbound					Black Mountain Road Northbound					Gold Coast Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
04:00 PM	19	108	20	4	151	8	28	34	0	70	43	251	14	3	311	28	34	77	5	144	676
04:15 PM	17	100	20	7	144	9	32	30	0	71	46	215	14	6	281	43	48	88	2	181	677
04:30 PM	22	93	25	8	148	8	27	41	0	76	57	281	10	2	350	41	36	52	3	132	706
04:45 PM	14	93	17	10	134	10	35	39	0	84	38	233	12	6	289	54	33	76	4	167	674
Total	72	394	82	29	577	35	122	144	0	301	184	980	50	17	1231	166	151	293	14	624	2733
05:00 PM	13	87	20	7	127	1	37	27	0	65	31	256	18	1	306	38	21	98	1	158	656
05:15 PM	22	96	25	11	154	9	50	29	0	88	45	219	15	7	286	62	45	93	1	201	729
05:30 PM	20	75	18	6	119	10	39	25	1	75	52	285	12	8	357	50	42	75	1	168	719
05:45 PM	24	81	23	13	141	17	51	29	0	97	49	194	7	2	252	59	29	82	2	172	662
Total	79	339	86	37	541	37	177	110	1	325	177	954	52	18	1201	209	137	348	5	699	2766
Grand Total	151	733	168	66	1118	72	299	254	1	626	361	1934	102	35	2432	375	288	641	19	1323	5499
Apprch %	13.5	65.6	15	5.9		11.5	47.8	40.6	0.2		14.8	79.5	4.2	1.4		28.3	21.8	48.5	1.4		
Total %	2.7	13.3	3.1	1.2	20.3	1.3	5.4	4.6	0	11.4	6.6	35.2	1.9	0.6	44.2	6.8	5.2	11.7	0.3	24.1	

	Black Mountain Road Southbound					Gold Coast Drive Westbound					Black Mountain Road Northbound					Gold Coast Drive Eastbound					
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	14	93	17	10	134	**10**	35	**39**	0	84	38	233	12	6	289	54	33	76	**4**	167	674
05:00 PM	13	87	20	7	127	1	37	27	0	65	31	256	**18**	1	306	38	21	**98**	1	158	656
05:15 PM	**22**	**96**	**25**	**11**	**154**	9	**50**	29	0	**88**	45	219	15	7	286	**62**	**45**	93	1	**201**	**729**
05:30 PM	20	75	18	6	119	10	39	25	**1**	75	**52**	**285**	12	**8**	**357**	50	42	75	1	168	719
Total Volume	69	351	80	34	534	30	161	120	1	312	166	993	57	22	1238	204	141	342	7	694	2778
% App. Total	12.9	65.7	15	6.4		9.6	51.6	38.5	0.3		13.4	80.2	4.6	1.8		29.4	20.3	49.3	1		
PHF	.784	.914	.800	.773	.867	.750	.805	.769	.250	.886	.798	.871	.792	.688	.867	.823	.783	.872	.438	.863	.953

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City of San Diego
N/S: Black Mountain Road
E/W: Gold Coast Drive
Weather: Clear

File Name : 06_SDG_BMtn_GC PM
Site Code : 05726228
Start Date : 3/10/2026
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM					05:00 PM					04:45 PM					05:00 PM				
+0 mins.	19	**108**	20	4	**151**	1	37	27	0	65	38	233	12	6	289	38	21	**98**	1	158
+15 mins.	17	100	20	7	144	9	50	**29**	0	88	31	256	**18**	1	306	**62**	**45**	93	1	**201**
+30 mins.	**22**	93	**25**	8	148	10	39	25	**1**	75	45	219	15	7	286	50	42	75	1	168
+45 mins.	14	93	17	**10**	134	**17**	**51**	29	0	**97**	**52**	**285**	12	**8**	**357**	59	29	82	**2**	172
Total Volume	72	394	82	29	577	37	177	110	1	325	166	993	57	22	1238	209	137	348	5	699
% App. Total	12.5	68.3	14.2	5		11.4	54.5	33.8	0.3		13.4	80.2	4.6	1.8		29.9	19.6	49.8	0.7	
PHF	.818	.912	.820	.725	.955	.544	.868	.948	.250	.838	.798	.871	.792	.688	.867	.843	.761	.888	.625	.869

INTERSECTION: BLACK MOUNTAIN RD & GOLD COAST DR

233 Program

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street: **Black Mountain Rd**
E/W Street: **Gold Coast Dr**

Last Database Change:

Timing sheets by: **JMV**
Approved by:
Timing implemented on: 2/19/2013

		Black Mountain Rd	Gold Coast Dr	Black Mountain Rd	Gold Coast Dr				
		Phase							
	Phase Numbers---->	1	2	3	4	5	6	7	8
Row									
0	Ped Walk		7		7		7		7
1	Ped FDW		11		21		12		20
2	Min Green	4	10	4	4	4	10	4	4
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.4	2.0	4.2	2.0	3.7	2.0	3.5
6	Max Gap	2.0	4.4	2.0	4.2	2.0	3.7	2.0	3.5
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	30	60	30	40	30	60	30	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every		0.7		0.8		0.9		0.9
E	Yellow Change	3.4	4.0	3.4	3.9	3.4	4.4	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 **<F/1+Phase+Row>**

Row		E
	RR-1 Delay	
	RR-1 Clear	
	EV-A Delay	0
	EV-A Clear	0
	EV-B Delay	0
	EV-B Clear	0
	EV-C Delay	0
	EV-C Clear	0
	EV-D Delay	0
	EV-D Clear	0
	RR-2 Delay	
	RR-2 Clear	
	View EV Delay	- - -
	View EV Clear	- - -
	View RR Delay	- - -
	View RR Clear	- - -

Preempt Timing **<F/1+E+Row>**

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	
6	Rest In Walk	
7	Red Rest	
8	Double Entry	
9	Max Recall	
A	Soft Recall	_2___6__
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	_2___6__
F	First Phases	___4___8

Phase Functions **<F/1+F+Row>**

Current Calculated Cycle Length: C/0 + B + F

	9	A	B	C	D
	- - -	- - -	- - -	- - -	- - -
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing **<F/1+Column+Phase>**

Drop Number	9	<C/0+0+0>
Zone Number	9	<C/0+0+1>
Area Number	3	<C/0+0+2>
Area Address	40	<C/0+0+3>
QuicNet Channel	COM 55	(QuicNet)

Communication Addresses

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>

Start / Revert Times

(Outputs specified in Assignable Outputs at E/127+A+E & F)

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Free Lag _2_4_6_8 **<C/1+F+0>**

How to Set Page Access Code:
F/1 -- C + 0 + F = 1
F9E = 1

Notes: 35084-4-D

Version: 233 RV
Rivision: San Diego 1

INTERSECTION: BLACK MOUNTAIN RD & GOLD COAST DR

233 Program

Row		Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8									
9									
A									
B									
C									
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments **<E/29+Column+Row>**

Row		F
0	Fast Green Flash Phase	
1	Green Flash Phases	
2	Flashing Walk Phases	
3	Guaranteed Passage	
4	Simultaneous Gap Term	
5	Sequential Timing	
6	Advance Walk Phases	
7	Delay Walk Phases	
8	External Recall	
9	Start-up Overlap Green	
A	Max Extension	
B	Inhibit Ped Reservice	
C	Semi-Actuated	
D	Start-up Overlap Yellow	
E	Start-up Vehicle Calls	
F	Start-up Ped Calls	

Specials **<F/2+F+Row>**

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	**_2__5___**
B	EV-B Phases	**___4__7_**
C	EV-C Phases	**1____6__**
D	EV-D Phases	**__3____8**
E	Extra 1 Config. Bits	**1_345___**
F	IC Select (Interconnect)	**_2_____**

Configuration **<E/125+E+Row>**

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	**12345678**
Ped for 2P Output	**_2_____**
Ped for 6P Output	**_____6__**
Ped for 4P Output	**___4____**
Ped for 8P Output	**_____8**
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	**__3_____**

Configuration **<E/125+F+Row>**

	C
EV-A	
EV-B	
EV-C	
EV-D	
RR-1 *	**- - -**
RR-2 *	**- - -**
SE-1	**0**
SE-2	**0**

<E/125+C+Row>

Preemption Priority

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row
0
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F

	2
Phase 1	**0**
Phase 2	**0**
Phase 3	**0**
Phase 4	**0**
Phase 5	**0**
Phase 6	**0**
Phase 7	**0**
Phase 8	**0**

<C/5+2+Row>

Coordination Transition Minimums

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Extra 2 Flags
1 = AWB During Initial
2 = LMU Installed
3 = Disable Min Walk
4 = QuicNet/4 System
5 = Ignore P/P on EV
6 =
7 = Reserved
8 =

Flash to PE & PE Non-Lock
1 = EV A
2 = EV B
3 = EV C
4 = EV D
5 = RR 1
6 = RR 2
7 = SE 1
8 = SE 2

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Time and Date

Begin Month	**3**	<C/5+2+A>
Begin Week	**2**	<C/5+2+B>
End Month	**11**	<C/5+2+C>
End Week	**2**	<C/5+2+D>

Daylight Savings Time

Daylight Savings Date:
If set to all zeros, standard dates will be used.

Version: 233 RV2
Revision: San Diego 1

INTERSECTION: BLACK MOUNTAIN RD & GOLD COAST DR

233 Program

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-Over
0	2I2U	39					1.8
1	6J2U	40					1.8
2	4I6U	41					1.8
3	8J6U	42					1.8
4	2I2L	43					
5	6J2L	44					
6	4I6L	45				12.0	
7	8J6L	46				12.0	
8	2I4	47					
9	6J4	48					
A	4I8	49					
B	8J8	50					
C	5J1U	55					
D	1I1U	56					
E	7J5	57					
F	3I5	58					

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-Over
0	5J9U	59					
1	1I9U	60					
2	7J9L	61					
3	3I9L	62					
4	2I3U	63					
5	6J3U	64					
6	4I7U	65					1.8
7	8J7U	66					
8	2 PPB	67					
9	6 PPB	68					
A	5 PPB	69					
B	8 PPB	70					
C	2I3L	76					
D	6J3L	77					
E	4I7L	78					
F	8J7L	79					

Detector Assignments **<E/126+Column+Row>** **<D/0+Column+Row>**

Program Type:

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs **<E/127+Column+Row>**

Cabinet Type	30

<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	**<D/0+0+1>**
Max ON (minutes)	60	**<D/0+0+2>**

Detector Failure Monitor

	D	Row
		0
Output Port 1		1
Output Port 2		2
Output Port 3		3
Output Port 4		4
Output Port 5		5
Output Port 6		6
Output Port 7		7

Dimming **<E/125+D+Row>**

	D
Number of Digits	
1 st Digit	
2 ed Digit	
3 ed Digit	
4 th Digit	
5 th Digit	
6 th Digit	
7 th Digit	
8 th Digit	
9 th Digit	
10 th Digit	
11 th Digit	
12 th Digit	
13 th Digit	
14 th Digit	
15 th Digit	

<C/5+D+Row>

Dial-Back Telephone Number

Disable Alarms
1 = Stop Time
2 = Flash Sense
3 = Keyboard Entry
4 = Manual Plan
5 = Police Control
6 = External Alarm
7 = Detector Failure
8 =

	B	Row
DELAY-A	1	A
DELAY-B	1	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

<D/0+B+Row> **(seconds)**

Delay Logic Times

Omit Alarm	#NAME?

<C/5+F+0>

Disable Alarm Reporting

Time	0	**<C/5+C+0>**

Redial Time (minutes)
(View Redial Timer at E/2+D+6)

INTERSECTION: BLACK MOUNTAIN RD & GOLD COAST DR

233 Program

Row	Time	Plan	Offset	Day of Week
0	15 : 00	2	A	_23456_
1	18 : 00	E	A	12345678
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Row	Time	Funct.	Day of Week
0	06 : 45	B	_23456_
1	08 : 00	B	_23456_
2	:		
3	:		
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			

TOD Function <7/0.1+Row>

Row	Column 4 Phases/Bits
0	12_456__
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

<E/27+4+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type	Row
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				A
				B
				C
				D
				E
				F

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions:
0 =
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select:
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Month Select:
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

Cycle Timer:
Master: C/0 + A + 0
Ring A: C/0 + B + 0
Ring B: C/0 + D + 0

Interval Timer:
Ring A: F/0 + A + Interval Row
Ring B: F/0 + B + Interval Row

Master Plan: C/0 + A + 2
Current Plan: C/0 + A + 3
TOD Plan: C/0 + A + 5

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.2+Row>
(Bank 2)

Time	Funct.	Holiday Type

Holiday TOD Function <7/0.2+Row>

Column 4 Phases/Bits

<E/28+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.2+Row>
(Bank 2)

Time	Plan	Offset	Holiday Type	Row
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				A
				B
				C
				D
				E
				F

Holiday Events <9/1.2+Row>
(Bank 2)

INTERSECTION: BLACK MOUNTAIN RD & GOLD COAST DR

233 Program

		Plan								
Row	*Plan Name ---->*	1	2	3	4	5	6	7	8	9
			PM							
0	Cycle Length		**136**							
1	Phase 1 - ForceOff		**123**							
2	Phase 2 - ForceOff		**0**							
3	Phase 3 - ForceOff		**70**							
4	Phase 4 - ForceOff		**103**							
5	Phase 5 - ForceOff		**37**							
6	Phase 6 - ForceOff		**0**							
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset 1		**65**							
B	Offset 2									
C	Offset 3									
D	Perm 1 - End		**10**							
E	Hold Release		**255**							
F	Zone Offset		**0**							

Coordination - Timing Plans <C/1+Plan+Row>

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row		E
0		
1	Plan 1 - Sync	
2	Plan 2 - Sync	**_2___6__**
3	Plan 3 - Sync	
4	Plan 4 - Sync	
5	Plan 5 - Sync	
6	Plan 6 - Sync	
7	Plan 7 - Sync	
8	Plan 8 - Sync	
9	Plan 9 - Sync	
A	NEMA Sync	
B	NEMA Hold	
C		
D		
E	Coord Extra	
F		

Sync Phases <C/1+E+Row>

Row										
0	Ped Adjustment									
1	Perm 2 - Start									
2	Perm 2 - End									
3	Perm 3 - Start									
4	Perm 3 - End									
5	Reservice Time									
6	Reservice Phases									
7										
8	Pretimed Phases									
9	Max Recall									
A	Perm 1 Veh Phase									
B	Perm 1 Ped Phase									
C	Perm 2 Veh Phase									
D	Perm 2 Ped Phase									
E	Perm 3 Veh Phase									
F	Perm 3 Ped Phase									

Coordination - Parameters <C/2+Plan+Row>

Row		F
0	Free Lag	
1	Plan 1 - Lag	
2	Plan 2 - Lag	**_2_45___**
3	Plan 3 - Lag	
4	Plan 4 - Lag	
5	Plan 5 - Lag	
6	Plan 6 - Lag	
7	Plan 7 - Lag	
8	Plan 8 - Lag	
9	Plan 9 - Lag	
A	External Lag	
B		
C		
D		
E		
F		

Lag Phases <C/1+F+Row>

Coordination Timing By:

Row	Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Spec. Funct. 1		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term		0
1	Spec. Funct. 2		NOT-4		System Det 1	**60**	Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	**71**	1
2	Spec. Funct. 3		OR-4 (a)		System Det 2	**62**	Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	**72**	2
3	Spec. Funct. 4		OR-4 (b)		System Det 3	**59**	Plan 3		Dimming		Offset 2 (7-Wire)		EV-C	**73**	3
4	NAND-3 (a)		OR-5 (a)		System Det 4	**61**	Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	**74**	4
5	NAND-3 (b)		OR-5 (b)		System Det 5	**80**	Plan 5		Stop Time	**82**	Free (7-Wire)		RR-1	**51**	5
6	NAND-4 (a)		OR-6 (a)		System Det 6	**53**	Plan 6		Flash Sense	**81**	Flash (7-Wire)		RR-2	**52**	6
7	NAND-4 (b)		OR-6 (b)		System Det 7	**54**	Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	OR-7 (a)		Fig 3 Diamond		System Det 8	**75**	Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	OR-7 (b)		Fig 4 Diamond		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)		AND-1 (a)		A
B	OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)		AND-1 (b)		B
C	OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2		OR-2 (a)		AND-2 (a)		C
D	OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs **<E/126+Column+Row>**

Row	Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1		Dial 2 (7-Wire)		0
1	Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1		TOD Out 2		Dial 3 (7-Wire)		1
2	Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Phase ON - 4		Sp Evnt Out 3		Fig 3 Diamond		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Phase ON - 5		Sp Evnt Out 4		Fig 4 Diamond		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Phase ON - 6		Sp Evnt Out 5				Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Phase ON - 7		Sp Evnt Out 6				Plan 6		AND-3		TOD Out 7		Flash (7-Wire)	**81**	6
7	Phase ON - 8		Sp Evnt Out 7				Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Ph. Check - 2				NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C				C
D	Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D				D
E	Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E				E
F	Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F				F

Assignable Outputs **<E/127+Column+Row>**

INTERSECTION: BLACK MTN @ HILLERY

Group Assignment: **NONE**
Field Master Assignment: **NONE**
System Reference Number: **21**

N/S Street Name: **HILLERY**
E/W Street Name: **BLACK MOUNTAIN**

Last Database Change: **11/1/2016 17:13**

w10/15

Change Record					
Change	By	Date	Change	By	Date

Notes: 1- Set Min Green before PE Force off to 4sec at (F/1+0+8)

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	1	<C/0+0+0>
Zone Number	1	<C/0+0+1>
Area Number	3	<C/0+0+2>
Area Address	39	<C/0+0+3>
QuicNet Channel	COM61:	(QuicNet)

Communication Addresses

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

Row	Column Numbers ---->	Phase 1	2	3	4	5	6	7	8	Row
	Phase Names ---->									
0	Ped Walk		7		7		7		7	0
1	Ped FDW		18		25		11		23	1
2	Min Green	4	10	4	4	4	10	4	4	2
3	Type 3 Disconnect									3
4	Added per Vehicle									4
5	Veh Extension	2.0	4.0	2.0	3.8	2.0	4.3	2.0	5.5	5
6	Max Gap	2.0	4.0	2.0	3.8	2.0	4.3	2.0	5.5	6
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2	7
8	Max Limit	30	60	30	40	30	60	30	35	8
9	Max Limit 2	30	60	35	45	30	60	35	45	9
A	Adv. / Delay Walk				5 0					A
B	PE Min Ped FDW		1		1		1		1	B
C	Cond Serv Check									C
D	Reduce Every		0.8		0.8		0.7		0.5	D
E	Yellow Change	3.4	4.4	3.4	3.9	3.4	4.0	3.4	4.0	E
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	F

Phase Timing - Bank 1 <C+0+F=1>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <C+0+F=1>

E	
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing

F		Row
Permit	12345678	0
Red Lock		1
Yellow Lock		2
Min Recall	2 6	3
Ped Recall		4
View Set Peds	-----	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall		A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	2 6	E
First Phases	4 8	F

Phase Functions <C+0+F=1>

Row	Column Numbers ---> / Overlap Name --->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <C+0+E=29>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	
5	RR-2 *	
6	SE-1	0
7	SE-2	0

Preempt Priority <C+0+E=125>
(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers --->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <C+0+E=125>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	34

Configuration <C+0+E=125>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Specials <C+0+F=2>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Row		2
0		
1	Phase 1	10
2	Phase 2	10
3	Phase 3	10
4	Phase 4	10
5	Phase 5	10
6	Phase 6	10
7	Phase 7	10
8	Phase 8	10

Coordination Transition Minimums <C+0+C=5>

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers --->	Plan 1	2	3	4	5	6	7	8	9	Row
0	Plan Name --->		AM Peak				PM Pk				0
1	Cycle Length	100	116	160	160	100	130 95	150	190 95		1
2	Phase 1 - ForceOff	69	77	100	89	70	91 64	93	110 65		2
3	Phase 2 - ForceOff	0	0	0	0	0	0	0	0		3
4	Phase 3 - ForceOff	19	28	35	34	18	30 16	30	31 20		4
5	Phase 4 - ForceOff	55	64	85	75	54	77 46	78	94 51		5
6	Phase 5 - ForceOff	74	78	102	92	76	104 84	110	126 77		6
7	Phase 6 - ForceOff	0	0	0	0	0	0	0	0		7
8	Phase 7 - ForceOff	15	21	37	32	18	28 16	26	31 20		8
9	Phase 8 - ForceOff	55	64	85	75	54	77 46	78	94 51		9
A	Ring Offset										A
B	Offset 1	4	0	0	0	0	6 4	132	36 81		B
C	Offset 2										C
D	Offset 3										D
E	Perm 1 - End	10	10	10	10	10	10	10	10		E
F	Hold Release	255	255	255	256	255	255	255	255		F
	Reserved										

Coordination - Bank 1 <C+0+C=1>

Row		E	Row
0			0
1	Plan 1 - Sync	2 6	1
2	Plan 2 - Sync	2 6	2
3	Plan 3 - Sync	2 6	3
4	Plan 4 - Sync	2 6	4
5	Plan 5 - Sync	2 6	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync	2 6	7
8	Plan 8 - Sync	2 6	8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E			E
F			F

Sync Phases <C+0+C=1>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment	0	0	0	0	0	0	0	80		0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	A
B	Perm 1 Ped Phase	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	12345678	B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C+0+C=2>

Row		F	Row
0	Free Lag	2 4 6 8	0
1	Plan 1 - Lag	2 4 6 8	1
2	Plan 2 - Lag	2 4 6 8	2
3	Plan 3 - Lag	2 4 6 8	3
4	Plan 4 - Lag	2 4 6 8	4
5	Plan 5 - Lag	2 4 6 8	5
6	Plan 6 - Lag	2 4 6 8	6
7	Plan 7 - Lag	2 4 6 8	7
8	Plan 8 - Lag	2 4 6 8	8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C+0+C=1>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set DOW	Dial 2 (7-Wire)	Sim Term	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <C+0+E=126>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Fth Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Fth Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Fth Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Fth Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <C+0+E=127>

Row	Phase Names ---->	Phase 1	2	3	4	5	6	7	8
	Column Numbers ---->								
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<C/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	0	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	12345678	<C/5+F+0>

Local Alarm Disable

Row	Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	Ph 2 I-2 U	39	45_7	2	123		1.8
1	Ph 6J-2 U	40	45_7	6	123		1.8
2	Ph 4I-6 U	41	45_7	4	123		1.8
3	Ph 8J-6 U	42	45_7	8	123		1.8
4	Ph 2I-2 U	43	45_7	2	123		1.8
5	Ph 6J-2 L	44	45_7	6	123		1.8
6		45	45_7	4	123		
7	Ph 8J-6 L	46	45_7	8	123		~~1:8~~
8	Ph 2 I-4	47	67	2	123		~~4:8~~
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7	5	123		
D		56	45_7	1	123		
E		57	45_7	7	123		
F		58	45_7	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0	SensUp	59	45_7	5	123		
1	SensDp	60	45_7	1	123		
2	"	61	45_7	7	123		
3	"	62	45_7	3	123		
4	Ph 2 I-3 U	63	45_7	2	123		1.8
5		64	45_7	6	123		
6		65	45_7	4	123		
7	Ph 8 J-7 U	66	45_7	8	123	10.0	
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C	Ph. 2 I-3 L	76	45_7	2	123		~~4:8~~
D		77	45_7	6	123		
E		78	45_7	4	123		
F		79	45_7	8	123		

Detector Assignments <C+0+E=126> <C+0+D=0>

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	6	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <C+0+E=127>

Cabinet Type	0	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot		8
Ext. Timer		9
DELAY-A		A
DELAY-B		B
DELAY-C		C
DELAY-D		D
DELAY-E		E
DELAY-F		F

Delay Logic Times
<C+0+D=0> (seconds)

1926
3/11/16

TOD Coordination <C+0+9=0.1>
(Bank 1)

Row	Time	Plan	Offset	Day of Week
0	07 : 00	16	A	23456
1	09 : 00	E	A	23456
2	15 : 00	18	A	23456
3	18 : 30	E	A	1234567
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <C+0+7=0.1>

Time	Funct.	Day of Week
11 : 45	B	6
12 : 30	B	6
14 : 00	B	234_6
15 : 00	B	234_6
0715	B	23456
0800	B	23456
00 : 00	0	

<C+0+E=27>

Column 4 Phases/Bits
34_78
34_78
34 78

Holiday Dates <C+0+8=1.1>
(Bank 1)

Day	Year	Month	Holiday Type

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 1 <C+0+E=27>

Notes:

0 <E/27+5+F>
Limited Service Interval

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
6										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 2 <C+0+E=28>

Notes:

0 <E/28+5+F>
Limited Service Interval

Min Time (seconds)	N/A	<F/1+0+8>

Min Green Before PE Force Off

Max Time (minutes)	255	<F/1+0+9>

Max Preempt Time Before Failure

Min Time (seconds)	0	<F/1+0+A>

Min Time Between Same Preempts
(Does Not Apply To Railroad Preempt)

Low Pri. Channel		<E/125+C+8>

Disable Low Priority Channel

Low Priority
1 = Channel A
2 = Channel B
3 = Channel C
4 = Channel D

Row		
C	Bus Headway	
D	Bus Delay	
E	Max Early Grn	10
F	Max Grn Ext.	10

Priority Parameters
<F/1 +A+Row>

Row	Time	Headway	Direction	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Headway Schedule <C+0+9=2,1>

Headway Time
(minutes)
1 thru 9 = 1 thru 9
A = 10
B = 11
C = 12
D = 13
E = 14
F = 15

Low Priority Preemption (Bus Priority)

Note: Also see "Time of Day Functions", Function E, Bit 5 (Disable Low Priority)

Group Assignment: **None**
Field Master Assignment: **None**
System Reference Number: **184**

N/S Street Name: **Black Mountain**
E/W Street Name: **Mira Mesa**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
AJ1	MJS	3/26/2019

Free Lag <C/1+F+0> : _2_4_6_8

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes: *Drawing No. 27464-4-D*

Adaptive System Operation Rules:

1- Intersection is running in Adaptive system coordination signal timing.
2- No Min Recalls/Max Recalls/Detector delays or locks to be used in the controller.
Only soft recall to be used for sync phases.
Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
3- Controller MUST BE set to FREE operation. C/0+A+1 =14
4- Min Green is 10s for sync phases and 5s for all other permitted phases.
5- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
6- "Carry Over" is set to "zero" for all detectors.

Drop Number	10	<C/0+0+0>
Zone Number	10	<C/0+0+1>
Area Number	3	<C/0+0+2>
Area Address	2	<C/0+0+3>
Transparity Channel	8025	(Transparity)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

		Mira Mesa		Black Mtn		Mira Mesa		Black Mtn	
		Phase							
Column Numbers ---->		1	2	3	4	5	6	7	8
Row		N		2+3				6+7	
0	Ped Walk		7		7		7		7
1	Ped FDW		33		33		31		34
2	Min Green	5	10	5	5	5	10	5	5
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	Max Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7	Min Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8	Max Limit	35	80	35	65	50	80	35	70
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	4.3	3.4	3.9	3.4	3.9	3.4	4.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12345678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6_8	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	_2___6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	__3___7_	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: BLACK MOUNTAIN RD @ MIRA MESA BL

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number								
1	Veh Set 1 - Phases	23	67						
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases	1 4	5 8						
5	Neg Ped Phases	2 4	6 8						
6	Green Omit Phases	2	6						
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	3.4	3.4						
F	Red Clear	1.0	1.0						

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	2
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	3
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	2 4 6 8

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: BLACK MOUNTAIN RD @ MIRA MESA BL

Column Numbers ---->	0	1	2	3	1	3
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		39	45_7_	2	123		
1		40	45_7_	6	123		
2		41	45_7_	4	123		
3		42	45_7_	8	123		
4		43	45_7_	2	123		
5		44	45_7_	6	123		
6		45	45_7_	4	123		
7		46	45_7_	8	123		
8		47	67	2	123		
9		48	67	6	123		
A		49	67	4	123		
B		50	67	8	123		
C		55	45_7_	5	123		
D		56	45_7_	1	123		
E		57	45_7_	7	123		
F		58	45_7_	3	123		

	4	5	6	7	2	4
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over
0		59	45_7_	5	123		
1		60	45_7_	1	123		
2		61	45_7_	7	123		
3		62	45_7_	3	123		
4		63	45_7_	2	123		
5		64	45_7_	6	123		
6		65	45_7_	4	123		
7		66	45_7_	8	123		
8		67	2	2	123		
9		68	2	6	123		
A		69	2	4	123		
B		70	2	8	123		
C		76	45_7_	2	123		
D		77	45_7_	6	123		
E		78	45_7_	4	123		
F		79	45_7_	8	123		

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap								
Column Numbers ---->	1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green	35	36							5
Overlap Yellow	37	38							6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30	**<E/125+D+0>**

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: BLACK MOUNTAIN RD @ MIRA MESA BL

TOD Coordination <9/0.1+Row> (Bank 1)

Row	Time	Plan	Offset	Day of Week
0	06 : 15	6	A	_23456_
1	09 : 30	9	A	_23456_
2	15 : 00	8	A	_23456_
3	19 : 00	9	A	_23456_
4	21 : 00	E	A	1234567
5	09 : 00	9	A	_____7
6	19 : 00	E	A	_____7
7	11 : 00	9	A	1_____
8	18 : 00	E	A	1_____
9				
A				
B				
C				
D				
E				
F				

TOD Function <7/0.1+Row> <E/27+4+Row>

Time	Funct.	Day of Week	Column 4 Phases/Bits

Holiday Dates <8/1.1+Row> (Bank 1)

Day	Year	Month	Holiday Type

Holiday Events <9/1.1+Row> (Bank 1)

Time	Plan	Offset	Holiday Type

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

TOD Coordination <C+0+9=0.2> (Bank 2)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday Dates <C+0+8=1.2> (Bank 2)

Day	Year	Month	Holiday Type

Holiday Events <C+0+9=1.2> (Bank 2)

Time	Plan	Offset	Holiday Type

Month Select: October = A, November = B, Decmber = C

INTERSECTION: BLACK MOUNTAIN RD @ MIRA MESA BL

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->										
0	Cycle Length						190	130	190	160	0
1	Phase 1 - ForceOff						122	85	34	110	1
2	Phase 2 - ForceOff						0	0	0	0	2
3	Phase 3 - ForceOff						17	26	108	23	3
4	Phase 4 - ForceOff						96	65	78	78	4
5	Phase 5 - ForceOff						122	90	175	110	5
6	Phase 6 - ForceOff						0	0	34	0	6
7	Phase 7 - ForceOff						96	26	70	35	7
8	Phase 8 - ForceOff						48	65	108	78	8
9	Ring Offset										9
A	Offset 1						92	102	123	92	A
B	Offset 2						102				B
C	Offset 3										C
D	Perm 1 - End						20	10	20	16	D
E	Hold Release						255	255	255	255	E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync		2
3	Plan 3 - Sync		3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync	_2___6__	6
7	Plan 7 - Sync	_2___6__	7
8	Plan 8 - Sync	_2_____	8
9	Plan 9 - Sync	_2___6__	9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment						8	10	1	3	0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag		1
2	Plan 2 - Lag		2
3	Plan 3 - Lag		3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag	_2_4_67_	6
7	Plan 7 - Lag	_2_4_6_8	7
8	Plan 8 - Lag	1_3__6_8	8
9	Plan 9 - Lag	_2_4_6_8	9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By:
Date:

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: BLACK MOUNTAIN RD @ MIRA MESA BL

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		7
1	Ped FDW		33		33		31		34
2	Min Green	4	10	4	10	4	10	4	10
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.1	2.0	3.1	2.0	4.2	2.0	3.5
6	Max Gap	2.0	4.1	2.0	3.1	2.0	4.2	2.0	3.5
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	35	80	35	65	50	80	35	70
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every		0.8		1.0		0.7		0.9
E	Yellow Change	3.4	4.3	3.4	3.9	3.4	3.9	3.4	4.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

INTERSECTION: HILLERY DR @ WESTVIEW PKWY

233 Program

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S St: WESTVIEW
E/W St: HILLERY

Last Database Change:
Timing sheets by: M2S
Approved by: TPI
Drawing Number:
Timing implemented on: 11/18/14

Row	Phase Numbers---->	1 HILLERY	2	3 WESTVIEW	4	5 HILLERY	6	7 WESTVIEW	8
0	Ped Walk		7		7		7		7
1	Ped FDW		20		19		21		18
2	Min Green	4	7	4	4	4	7	4	4
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	6.2	2.0	2.0	2.0	6.3	2.0	2.0
6	Max Gap	2.0	6.2	2.0	2.0	2.0	6.3	2.0	2.0
7	Min Gap	2.0	2.2	2.0	2.0	2.0	2.2	2.0	2.0
8	Max Limit	30	60	30	40	30	60	30	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every		0.5				0.5		
E	Yellow Change	3.4	3.9	3.4	4.3	3.4	3.9	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

Row		E
0	RR-1 Delay	
1	RR-1 Clear	
2	EV-A Delay	0
3	EV-A Clear	0
4	EV-B Delay	0
5	EV-B Clear	0
6	EV-C Delay	0
7	EV-C Clear	0
8	EV-D Delay	0
9	EV-D Clear	0
A	RR-2 Delay	
B	RR-2 Clear	
C	*View EV Delay*	- - -
D	*View EV Clear*	- - -
E	*View RR Delay*	- - -
F	*View RR Clear*	- - -

Preempt Timing <F/1+E+Row>

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	
4	Ped Recall	
5	*View Set Peds*	2 4 6 8
6	Rest In Walk	
7	Red Rest	
8	Double Entry	
9	Max Recall	
A	Soft Recall	2 6
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	2 6
F	First Phases	3 7

Phase Functions <F/1+F+Row>

Current Calculated Cycle Length: C/0 + B + F

	9	A	B	C	D
	- - -	- - -	- - -	- - -	- - -
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

Drop Number	9	<C/0+0+0>
Zone Number	9	<C/0+0+1>
Area Number	3	<C/0+0+2>
Area Address	69	<C/0+0+3>
QuicNet Channel	COM61	(QuicNet)

Communication Addresses

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>

Start / Revert Times

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

(Outputs specified in Assignable Outputs at E/127+A+E & F)

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Free Lag	2 4 6 8	<C/1+F+0>

How to Set Page Access Code:
F/1 -- C + 0 + F = 1

Notes:

Row		Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8									
9									
A									
B									
C									
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

	F	Row
Fast Green Flash Phase		0
Green Flash Phases		1
Flashing Walk Phases		2
Guaranteed Passage		3
Simultaneous Gap Term	12345678	4
Sequential Timing		5
Advance Walk Phases		6
Delay Walk Phases		7
External Recall		8
Start-up Overlap Green		9
Max Extension		A
Inhibit Ped Reservice		B
Semi-Actuated		C
Start-up Overlap Yellow		D
Start-up Vehicle Calls	12345678	E
Start-up Ped Calls	12345678	F

Specials <F/2+F+Row>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 5
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 34
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	C
EV-A	
EV-B	
EV-C	
EV-D	
RR-1 *	- - -
RR-2 *	- - -
SE-1	0
SE-2	0

<E/125+C+Row>

Preemption Priority

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row
0
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F

	2
Phase 1	0
Phase 2	0
Phase 3	0
Phase 4	0
Phase 5	0
Phase 6	0
Phase 7	0
Phase 8	0

<C/5+2+Row>

Coordination Transition Minimums

Row
0
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Extra 2 Flags
1 = AWB During Initial
2 = LMU Installed
3 = Disable Min Walk
4 = QuicNet/4 System
5 = Ignore P/P on EV
6 =
7 = Reserved
8 =

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Time and Date

Begin Month	0	<C/5+2+A>
Begin Week	0	<C/5+2+B>
End Month	0	<C/5+2+C>
End Week	0	<C/5+2+D>

Daylight Savings Time

Daylight Savings Date:
If set to all zeros, standard dates will be used.

INTERSECTION: HILLERY DR @ WESTVIEW PKWY

233 Program

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-Over
0	2I2U	39	45_7_	2	123_8		1.8
1	6J2U	40	45_7_	6	123_8		1.8
2		41	45_7_	4	123_8		
3		42	45_7_	8	123_8		
4	2I2L	43	45_7_	2	123_8		1.8
5		44	45_7_	6	123_8		
6		45	45_7_	4	123_8		
7		46	45_7_	8	123_8		
8		47	67_	2	123_8		
9	6J4L(Bike Loop)	48	567_	6	123_8		1.8
A		49	67_	4	123_8		
B		50	67_	8	123_8		
C		55	45_7_	5	123_8		
D		56	45_7_	1	123_8		
E		57	45_7_	7_	123_8		
F		58	45_7_	3	123_8		

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-Over
0		59	45_7_	5	123_8		
1		60	45_7_	1	123_8		
2		61	45_7_	7_	123_8		
3		62	45_7_	3	123_8		
4	2I3U(Bike Loop)	63	45_7_	2	123_8		1.8
5	6J3U	64	45_7_	6	123_8		1.8
6		65	45_7_	4	123_8		
7		66	45_7_	8	123_8		
8		67	2	2	123_8		
9		68	2	6	123_8		
A		69	2	4	123_8		
B		70	2	8	123_8		
C		76	45_7_	2	123_8		
D		77	45_7_	6	123_8		
E		78	45_7_	4	123_8		
F		79	45_7_	8	123_8		

Detector Assignments <E/126+Column+Row> <D/0+Column+Row>

Program Type:

	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0

<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	5	<D/0+0+1>
Max ON (minutes)	60	<D/0+0+2>

Detector Failure Monitor

	D	Row
		0
Output Port 1		1
Output Port 2		2
Output Port 3		3
Output Port 4		4
Output Port 5		5
Output Port 6		6
Output Port 7		7

Dimming <E/125+D+Row>

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	D
Number of Digits	
1 st Digit	
2 ed Digit	
3 ed Digit	
4 th Digit	
5 th Digit	
6 th Digit	
7 th Digit	
8 th Digit	
9 th Digit	
10 th Digit	
11 th Digit	
12 th Digit	
13 th Digit	
14 th Digit	
15 th Digit	

<C/5+D+Row>

Dial-Back Telephone Number

Disable Alarms
1 = Stop Time
2 = Flash Sense
3 = Keyboard Entry
4 = Manual Plan
5 = Police Control
6 = External Alarm
7 = Detector Failure
8 =

	B	Row
DELAY-A	1	A
DELAY-B	1	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

<D/0+B+Row> (seconds)

Delay Logic Times

Omit Alarm	#NAME?

<C/5+F+0>

Disable Alarm Reporting

Time	0	<C/5+C+0>

Redial Time (minutes)
(View Redial Timer at E/2+D+6)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Row	Time	Funct.	Day of Week
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			

TOD Function <7/0.1+Row>

Row	Column 4 Phases/Bits
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

<E/27+4+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type	Row
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				A
				B
				C
				D
				E
				F

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions:
0 =
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select:
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.2+Row>
(Bank 2)

Row	Time	Funct.	Holiday Type
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			

Holiday TOD Function <7/0.2+Row>

Row	Column 4 Phases/Bits
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

<E/28+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.2+Row>
(Bank 2)

Time	Plan	Offset	Holiday Type	Row
				0
				1
				2
				3
				4
				5
				6
				7
				8
				9
				A
				B
				C
				D
				E
				F

Holiday Events <9/1.2+Row>
(Bank 2)

Month Select:
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

Cycle Timer:
Master: C/0 + A + 0
Ring A: C/0 + B + 0
Ring B: C/0 + D + 0

Interval Timer:
Ring A: F/0 + A + Interval Row
Ring B: F/0 + B + Interval Row

Master Plan: C/0 + A + 2
Current Plan: C/0 + A + 3
TOD Plan: C/0 + A + 5

Row	Plan Name ---->	Plan 1	Plan 2	Plan 3	Plan 4	Plan 5	Plan 6	Plan 7	Plan 8	Plan 9
0	Cycle Length									
1	Phase 1 - ForceOff									
2	Phase 2 - ForceOff									
3	Phase 3 - ForceOff									
4	Phase 4 - ForceOff									
5	Phase 5 - ForceOff									
6	Phase 6 - ForceOff									
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset 1									
B	Offset 2									
C	Offset 3									
D	Perm 1 - End									
E	Hold Release									
F	Zone Offset									

Coordination - Timing Plans **<C/1+Plan+Row>**

Coord Extra
1 = Programmed WALK Time for Sy... ...ses
2 = Always Terminate Sync Phase Peds

Row	E
0	
1	Plan 1 - Sync
2	Plan 2 - Sync
3	Plan 3 - Sync
4	Plan 4 - Sync
5	Plan 5 - Sync
6	Plan 6 - Sync
7	Plan 7 - Sync
8	Plan 8 - Sync
9	Plan 9 - Sync
A	NEMA Sync
B	NEMA Hold
C	
D	
E	Coord Extra
F	

Sync Phases **<C/1+E+Row>**

Row	Ped Adjustment	Perm 2 - Start	Perm 2 - End	Perm 3 - Start	Perm 3 - End	Reservice Time	Reservice Phases		Pretimed Phases	Max Recall	Perm 1 Veh Phase	Perm 1 Ped Phase	Perm 2 Veh Phase	Perm 2 Ped Phase	Perm 3 Veh Phase	Perm 3 Ped Phase
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

Coordination - Parameters **<C/2+Plan+Row>**

Row	F
0	Free Lag
1	Plan 1 - Lag
2	Plan 2 - Lag
3	Plan 3 - Lag
4	Plan 4 - Lag
5	Plan 5 - Lag
6	Plan 6 - Lag
7	Plan 7 - Lag
8	Plan 8 - Lag
9	Plan 9 - Lag
A	External Lag
B	
C	
D	
E	
F	

Lag Phases **<C/1+F+Row>**

Coordination Timing By:

Assignable Inputs <E/126+Column+Row>

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Spec. Funct. 1	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term	0
1	Spec. Funct. 2	NOT-4	System Det 1	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	Spec. Funct. 3	OR-4 (a)	System Det 2	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	Spec. Funct. 4	OR-4 (b)	System Det 3	Plan 3	Dimming	Offset 2 (7-Wire)	EV-C 73	3
4	NAND-3 (a)	OR-5 (a)	System Det 4	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	NAND-3 (b)	OR-5 (b)	System Det 5	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	NAND-4 (a)	OR-6 (a)	System Det 6	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	NAND-4 (b)	OR-6 (b)	System Det 7	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	OR-7 (a)	Fig 3 Diamond	System Det 8	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	OR-7 (b)	Fig 4 Diamond	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Outputs <E/127+Column+Row>

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Phase ON - 4	Sp Evnt Out 3	Fig 3 Diamond	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Phase ON - 5	Sp Evnt Out 4	Fig 4 Diamond	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Phase ON - 6	Sp Evnt Out 5		Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Phase ON - 7	Sp Evnt Out 6		Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Phase ON - 8	Sp Evnt Out 7		Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Ph. Check - 2		NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C		C
D	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D		D
E	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E		E
F	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F		F

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Group Assignment: **None**
Field Master Assignment: **None**
System Reference Number: **183**

N/S Street Name: **Westview**
E/W Street Name: **Mira Mesa**

Last Database Change:

Change Record		
Timing Sheet By	Approved By	Date
AJ1	M2S	3/26/19

Free Lag <C/1+F+0> _23__6_8

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Notes: *Drawing No. 29650-35-D*

Adaptive System Operation Rules:

1- Intersection is running in Adaptive system coordination signal timing.
2- No Min Recalls/Max Recalls/Detector delays or locks to be used in the controller.
Only soft recall to be used for sync phases.
Recalls/Delays are to be configured in the InSync Processor, Detector Setup.
3- Controller MUST BE set to FREE operation. C/0+A+1 =14
4- Min Green is 10s for sync phases and 5s for all other permitted phases.
5- Veh Ext, Max Gap & Min Gap are set to 1.0s, Reduce Every is set to "zero".
6- "Carry Over" is set to "zero" for all detectors.

Drop Number	11	<C/0+0+0>
Zone Number	11	<C/0+0+1>
Area Number	3	<C/0+0+2>
Area Address	1	<C/0+0+3>
Transparity Channel	8025	(Transparity)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

		Mira Mesa		Westview		Mira Mesa		Westview	
		Phase							
	Column Numbers --->	1	2	3	4	5	6	7	8
Row		N						6+7	
0	Ped Walk		7		7		7		
1	Ped FDW		26		42		30		
2	Min Green	5	10	5	5	5	10	5	5
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
6	Max Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7	Min Gap	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
8	Max Limit	40	60	30	30	35	60	40	30
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change	3.4	3.9	3.4	4.3	3.4	3.9	3.4	4.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12345678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	_2_4_6_8	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	_2___6__	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	___4___8	F

Phase Functions <F/1+F+Row>

How to Set Page Access Code: F/1 -- C + 0 + F = 1

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Row	Column Numbers ----> / Overlap Name ---->	Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases	67							
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases	5 8							
5	Neg Ped Phases								
6	Green Omit Phases	6							
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	3.4							
F	Red Clear	1.0							

Overlap Assignments <E/29+Column+Row>

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Gm B4 Yellow

	C
EV-A	0
EV-B	0
EV-C	0
EV-D	0
RR-1 *	---
RR-2 *	---
SE-1	0
SE-2	0

Preempt Priority <E/125+C+Row>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	3 7
Extra 2 Config. Bits	3

Configuration <E/125+F+Row>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	2 4 6

Specials <F/2+F+Row>

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

Coordination Transition Minimums <C/5+2+Row>

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Column Numbers ---->	0	1	2	3	1	3	Row
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over	
0		39	45_7_	2	123			0
1		40	45_7_	6	123			1
2		41	45_7_	4	123			2
3		42	45_7_	8	123			3
4		43	45_7_	2	123			4
5		44	45_7_	6	123			5
6		45	45_7_	4	123			6
7		46	45_7_	8	123			7
8		47	67_	2	123			8
9		48	67_	6	123			9
A		49	67_	4	123			A
B		50	67_	8	123			B
C		55	45_7_	5	123			C
D		56	45_7_	1	123			D
E		57	45_7_	7	123			E
F		58	45_7_	3	123			F

	4	5	6	7	2	4	
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	Delay	Carry-over	
0		59	45_7_	5	123			0
1		60	45_7_	1	123			1
2		61	45_7_	7	123			2
3		62	45_7_	3	123			3
4		63	45_7_	2	123			4
5		64	45_7_	6	123			5
6		65	45_7_	4	123			6
7		66	45_7_	8	123			7
8		67	2_	2	123			8
9		68	2_	6	123			9
A		69	2_	4	123			A
B		70	2_	8	123			B
C		76	45_7_	2	123			C
D		77	45_7_	6	123			D
E		78	45_7_	4	123			E
F		79	45_7_	8	123			F

Detector Assignments <E/126+Column+Row> **<D/0+Column+Row>**

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 = Overlap
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

Column Numbers ---->	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green	36								5
Overlap Yellow	38								6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	30	<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	60	<D/0+0+1>
Max ON (minutes)	5	<D/0+0+2>
Chatter Fail Time	0	<D/0+0+4>

Detector Failure Monitor

	B	Row
One-Shot	0	8
Ext. Timer	0	9
DELAY-A	0	A
DELAY-B	0	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

Delay Logic Times
<D/0+B+Row> (seconds)

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Row	Time	Plan	Offset	Day of Week
0	06 : 15	1	A	_23456_
1	09 : 30	9	A	_23456_
2	15 : 00	3	A	_23456_
3	19 : 00	9	A	_23456_
4	21 : 00	E	A	_23456_
5	09 : 00	9	A	_____7
6	19 : 00	E	A	_____7
7	11 : 00	9	A	1_____
8	18 : 00	E	A	1_____
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Time	Funct.	Day of Week	Column 4 Phases/Bits

TOD Function <7/0.1+Row> <E/27+4+Row>

Day	Year	Month	Holiday Type

Holiday Dates <8/1.1+Row>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <9/1.1+Row>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type	Column 4 Phases/Bits

Holiday TOD Function <C+0+7=0.2> <C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Column Numbers ---->	Plan 1	2	3	4	5	6	7	8	9	Row
	Plan Name ---->										
0	Cycle Length	190		190						160	0
1	Phase 1 - ForceOff	129		131						110	1
2	Phase 2 - ForceOff	0		0						0	2
3	Phase 3 - ForceOff	96		85						70	3
4	Phase 4 - ForceOff	79		60						41	4
5	Phase 5 - ForceOff	113		117						100	5
6	Phase 6 - ForceOff	0		0						0	6
7	Phase 7 - ForceOff	46		35						35	7
8	Phase 8 - ForceOff	96		85						70	8
9	Ring Offset										9
A	Offset 1	113		41						95	A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End	20		20						16	D
E	Hold Release	255		255						255	E
F	Reserved										F

Coordination - Bank 1 <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync	_2__6__	1
2	Plan 2 - Sync		2
3	Plan 3 - Sync	_2__6__	3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync	_2__6__	9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C/1+E+Row>

Row		1	2	3	4	5	6	7	8	9	Row
0	Ped Adjustment	0		0						3	0
1	Perm 2 - Start										1
2	Perm 2 - End										2
3	Perm 3 - Start										3
4	Perm 3 - End										4
5	Reservice Time										5
6	Reservice Phases										6
7											7
8	Pretimed Phases										8
9	Max Recall										9
A	Perm 1 Veh Phase										A
B	Perm 1 Ped Phase										B
C	Perm 2 Veh Phase										C
D	Perm 2 Ped Phase										D
E	Perm 3 Veh Phase										E
F	Perm 3 Ped Phase										F

Coordination - Bank 2 <C/2+Plan+Row>

Row		F	Row
0	Free Lag		0
1	Plan 1 - Lag	_23__6_8	1
2	Plan 2 - Lag		2
3	Plan 3 - Lag	_23__6_8	3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag	_23__6_8	9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By: MM 2/24/99
WH 10/15/03

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	One-Shot Timer	Latch 1 Set	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	AND-5 (a)	Latch 1 Reset	NOT-4	Reserved	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	AND-5 (b)	Latch 2 Set	OR-4 (a)	Reserved	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	AND-6 (a)	Latch 2 Reset	OR-4 (b)	Reserved	Plan 3	Gate Down	Offset 2 (7-Wire)	EV-C 73	3
4	AND-6 (b)	NAND-3 (a)	OR-5 (a)	Reserved	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	Reserved	NAND-3 (b)	OR-5 (b)	Reserved	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	Reserved	NAND-4 (a)	OR-6 (a)	Reserved	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	Reserved	NAND-4 (b)	OR-6 (b)	Reserved	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	Spec. Funct. 1	OR-7 (a)	EXTMR	Reserved	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	Spec. Funct. 2	OR-7 (b)	Reserved	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	Spec. Funct. 3	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	Spec. Funct. 4	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	Reserved	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	Reserved	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	Reserved	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	Reserved	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs <E/126+Column+Row>

Row	Column 8	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Reserved	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Reserved	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Reserved	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Reserved	Phase ON - 4	Sp Evnt Out 3	EXTMR	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Reserved	Phase ON - 5	Sp Evnt Out 4	One-Shot Timer	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Reserved	Phase ON - 6	Sp Evnt Out 5	Reserved	Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Reserved	Phase ON - 7	Sp Evnt Out 6	Latch 1	Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Reserved	Phase ON - 8	Sp Evnt Out 7	Latch 2	Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Flh Yell Arrow 1	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Green 1	Ph. Check - 2	Coord On	NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Flh Yell Arrow 3	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Green 3	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Flh Yell Arrow 5	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C	AND-5	C
D	Green 5	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D	AND-6	D
E	Flh Yell Arrow 7	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E	Reserved	E
F	Green 7	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F	Reserved	F

Assignable Outputs <E/127+Column+Row>

INTERSECTION: MIRA MESA BL @ WESTVIEW PY

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		26		42		30		
2	Min Green	4	10	4	7	4	10	4	7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	5.7	2.0	4.7	2.0	6.8	2.0	4.8
6	Max Gap	2.0	5.7	2.0	4.7	2.0	6.8	2.0	4.8
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	40	60	30	30	35	60	40	30
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every		0.5		0.7		0.5		0.7
E	Yellow Change	3.4	3.9	3.4	4.3	3.4	3.9	3.4	4.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	<F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					

Max Initial
Alternate Walk
Alternate FDW
Alternate Initial
Alternate Extension

Alternate Timing

APPENDIX B

TRANSIT SCHEDULES

Fare Information
Información de tarifas
sdmts.com/fares

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MTS sdmts.com

MTS Security *MTS Seguridad*	**619-595-4960**
MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective June 30, 2023

20

Downtown San Diego ↔ Rancho Bernardo Station
via Fashion Valley

110

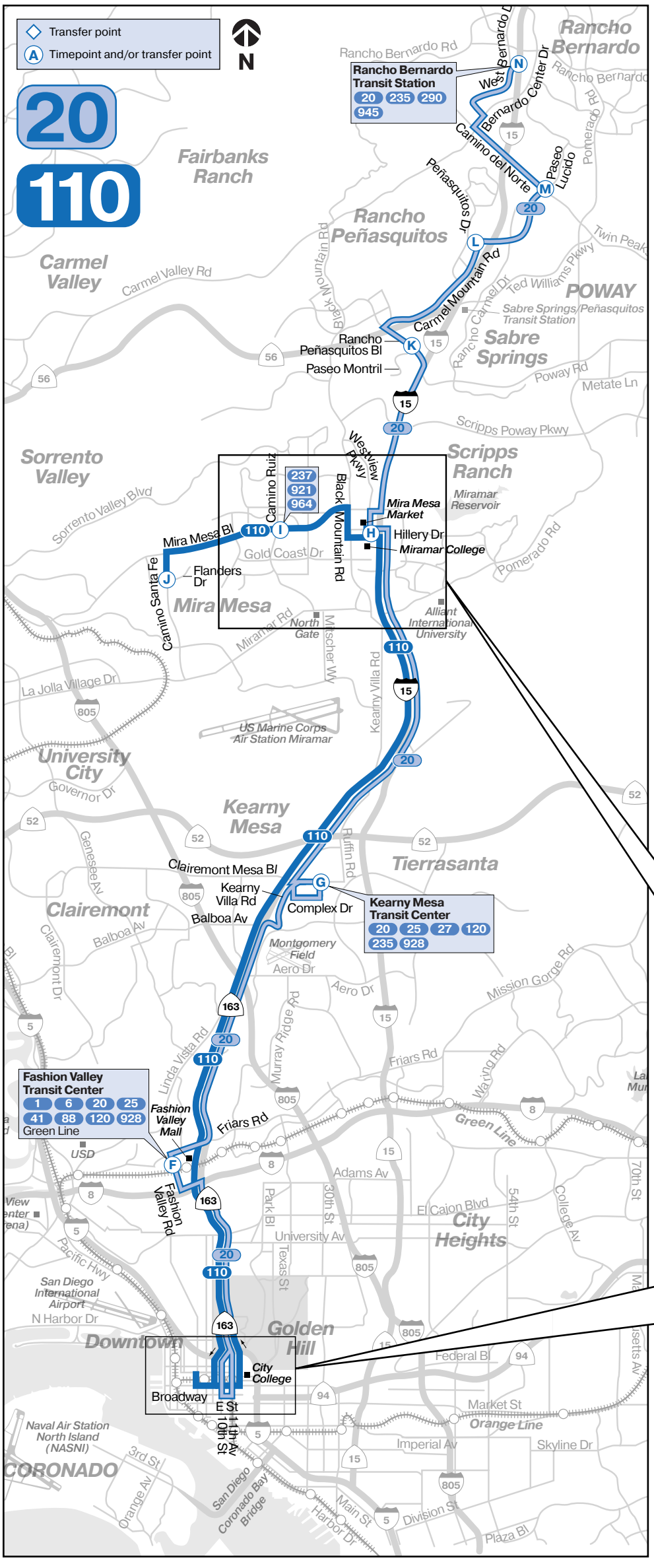
Downtown San Diego ↔ Mira Mesa Express
via I-15 / Hwy 163

Bus Routes

Destinations
- City College
- Downtown Courthouse (110)
- Fashion Valley Mall (20)
- Miramar College
- Mira Mesa Market

Trolley Connections
- City College
- Fashion Valley (20)

Subject to change without notice
Sujeto a cambios sin previo aviso



110 Monday through Friday • *lunes a viernes*

Morning Only

Mira Mesa → Downtown San Diego

J Camino Santa Fe & Flanders Dr. **DEPART**	I Mira Mesa Bl. & Camino Ruiz	H Miramar College Transit Station	D 10th Av. & B St.	C Broadway & 5th Av.	B Broadway & Union St. **ARRIVE**
6:02a	6:07a	6:15a	6:33a	6:37a	6:41a
6:22	6:27	6:35	6:53	6:57	7:01
6:41	6:46	6:55	7:14	7:18	7:23
7:04	7:10	7:20	7:41	7:45	7:51

110 Monday through Friday • *lunes a viernes*

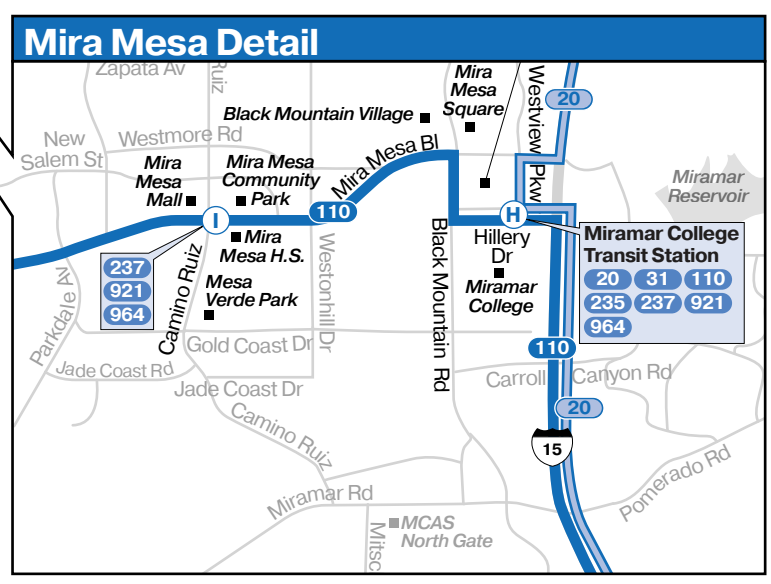
Afternoon Only

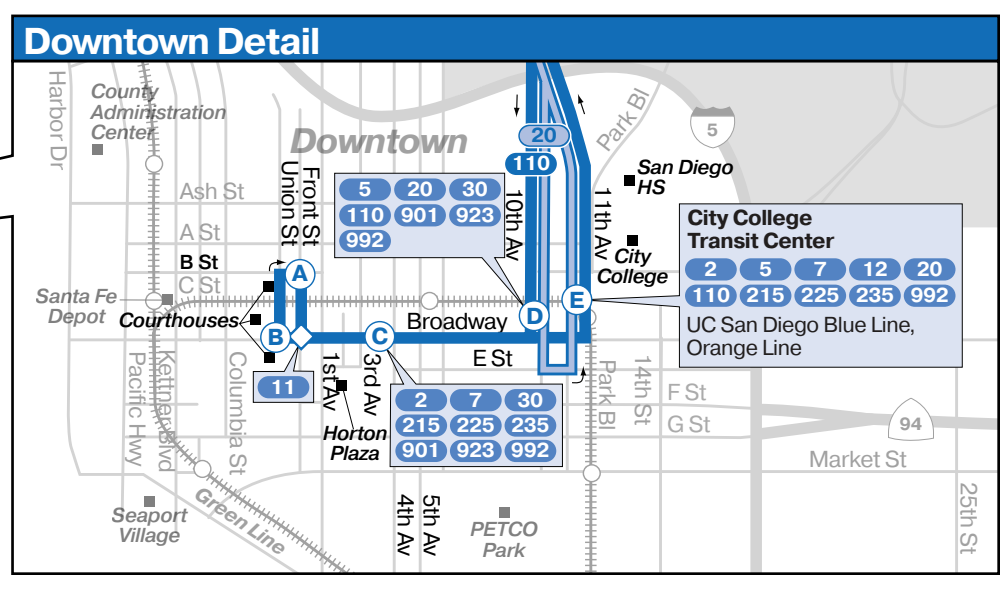
Downtown San Diego → Mira Mesa

A Front St. & B St. **DEPART**	C Broadway & 3rd Av.	E City College Transit Center (11th & B)	H Miramar College Transit Station	I Mira Mesa Bl. & Camino Ruiz	J Camino Santa Fe & Flanders Dr. **ARRIVE**
4:01p	**4:05p**	**4:12p**	**4:35p**	**4:46p**	**4:55p**
4:26	**4:30**	**4:37**	**5:00**	**5:11**	**5:20**
4:51	**4:55**	**5:02**	**5:26**	**5:37**	**5:47**
5:21	**5:25**	**5:32**	**5:56**	**6:07**	**6:17**

Gray-shaded times are approximate; trip may run earlier than scheduled. / *Los tiempos sombreados en gris son aproximados; los viajes pueden operar más temprano de lo que se indica.*

Route 110 does not operate on weekends or on the following holidays and observed holidays:
La ruta 110 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados: **New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas**





20 Monday through Friday • *lunes a viernes*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	4:56a	5:06a	5:08a	5:21a	5:32a	5:39a	5:47a	5:53a	6:01a
—	5:26	5:36	5:38	5:52	6:03	6:10	6:18	6:25	6:34
—	5:41	5:51	5:53	6:08	—	—	—	—	—
5:53a	5:56	6:06	6:08	6:23	6:34	6:42	6:50	6:57	7:07
6:08	6:11	6:21	6:23	6:38	—	—	—	—	—
6:23	6:26	6:36	6:38	6:54	7:06	7:14	7:23	7:30	7:40
6:38	6:41	6:51	6:53	7:09	—	—	—	—	—
6:53	6:56	7:06	7:08	7:24	7:36	7:44	7:53	8:00	8:10
7:08	7:11	7:21	7:23	7:39	—	—	—	—	—
7:23	7:26	7:36	7:38	7:54	8:06	8:14	8:23	8:30	8:41
7:38	7:41	7:51	7:53	8:09	—	—	—	—	—
7:53	7:56	8:06	8:08	8:24	8:36	8:44	8:53	9:00	9:11
8:08	8:11	8:21	8:23	8:39	—	—	—	—	—
8:23	8:26	8:36	8:38	8:54	9:06	9:14	9:23	9:30	9:41
8:38	8:41	8:51	8:53	9:08	—	—	—	—	—
8:53	8:56	9:06	9:08	9:23	9:34	9:42	9:51	9:58	10:08
9:23	9:26	9:36	9:38	9:53	10:04	10:12	10:21	10:28	10:38
9:53	9:56	10:06	10:08	10:23	10:34	10:42	10:51	10:58	11:08
10:23	10:26	10:36	10:38	10:53	11:04	11:12	11:21	11:28	11:38
10:53	10:56	11:06	11:08	11:23	11:34	11:42	11:51	11:58	**12:08p**
11:23	11:26	11:36	11:38	11:53	**12:04p**	**12:12p**	**12:21p**	**12:28p**	**12:38**
11:53	11:56	**12:07p**	**12:09p**	**12:24p**	**12:35**	**12:44**	**12:53**	**1:00**	**1:10**
12:23p	**12:26p**	**12:37**	**12:39**	**12:54**	**1:05**	**1:14**	**1:23**	**1:30**	**1:40**
12:53	**12:56**	**1:07**	**1:09**	**1:24**	**1:35**	**1:44**	**1:53**	**2:00**	**2:10**
1:23	**1:26**	**1:37**	**1:39**	**1:55**	**2:06**	**2:15**	**2:25**	**2:32**	**2:42**
1:53	**1:56**	**2:07**	**2:09**	**2:26**	**2:37**	**2:46**	**2:56**	**3:03**	**3:13**
2:23	**2:26**	**2:37**	**2:39**	**2:56**	**3:08**	**3:18**	**3:29**	**3:36**	**3:47**
2:52	**2:55**	**3:06**	**3:08**	**3:25**	**3:37**	**3:47**	**3:58**	**4:05**	**4:16**
3:07	**3:10**	**3:21**	**3:23**	**3:40**	—	—	—	—	—
3:22	**3:25**	**3:36**	**3:38**	**3:55**	**4:08**	**4:18**	**4:29**	**4:36**	**4:47**
3:37	**3:40**	**3:51**	**3:53**	**4:10**	—	—	—	—	—
3:52	**3:55**	**4:06**	**4:08**	**4:25**	**4:38**	**4:48**	**4:59**	**5:06**	**5:17**
4:07	**4:10**	**4:21**	**4:23**	**4:40**	—	—	—	—	—
4:22	**4:25**	**4:36**	**4:38**	**4:55**	**5:08**	**5:18**	**5:29**	**5:36**	**5:47**
4:37	**4:40**	**4:51**	**4:53**	**5:10**	—	—	—	—	—
4:52	**4:55**	**5:06**	**5:08**	**5:25**	**5:38**	**5:48**	**5:59**	**6:06**	**6:17**
5:07	**5:10**	**5:21**	**5:23**	**5:40**	—	—	—	—	—
5:23	**5:26**	**5:37**	**5:39**	**5:55**	**6:08**	**6:18**	**6:28**	**6:35**	**6:45**
5:53	**5:56**	**6:07**	**6:09**	**6:24**	**6:36**	**6:45**	**6:54**	**7:01**	**7:10**
6:23	**6:26**	**6:37**	**6:39**	**6:54**	**7:06**	**7:15**	**7:24**	**7:31**	**7:40**
6:54	**6:57**	**7:07**	**7:09**	**7:23**	**7:35**	**7:44**	**7:53**	**8:00**	**8:08**
7:24	**7:27**	**7:37**	**7:39**	**7:53**	**8:04**	**8:12**	**8:20**	**8:26**	**8:34**
7:54	**7:57**	**8:07**	**8:09**	**8:23**	**8:34**	**8:42**	**8:50**	**8:56**	**9:04**
8:54	**8:57**	**9:07**	**9:09**	**9:23**	—	—	—	—	—

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
5:13a	5:21a	5:27a	5:36a	5:45a	5:55a	6:08a	6:10a	6:21a
5:42	5:50	5:57	6:06	6:15	6:25	6:38	6:40	6:51
—	—	—	—	—	6:54	7:08	7:10	7:21
6:19	6:28	6:35	6:46	6:58	7:09	7:23	7:25	7:36
—	—	—	—	—	7:24	7:38	7:40	7:52
6:47	6:57	7:04	7:16	7:28	7:39	7:53	7:55	8:07
—	—	—	—	—	7:54	8:08	8:10	8:22
7:17	7:27	7:34	7:46	7:58	8:09	8:23	8:25	8:37
—	—	—	—	—	8:25	8:39	8:41	8:53
7:49	7:59	8:06	8:17	8:29	8:40	8:54	8:56	9:08
8:19	8:29	8:36	8:47	8:59	9:10	9:24	9:26	9:37
8:50	9:00	9:07	9:17	9:28	9:39	9:53	9:55	10:06
9:24	9:33	9:40	9:49	9:58	10:09	10:23	10:25	10:36
9:54	10:03	10:10	10:19	10:28	10:39	10:53	10:55	11:06
10:24	10:33	10:40	10:49	10:58	11:09	11:23	11:25	11:36
10:50	10:59	11:07	11:16	11:26	11:38	11:53	11:55	**12:06p**
11:20	11:29	11:37	11:46	11:56	**12:08p**	**12:23p**	**12:25p**	**12:36**
11:50	11:59	**12:07p**	**12:16p**	**12:26p**	**12:38**	**12:53**	**12:55**	**1:06**
12:20p	**12:29p**	**12:37**	**12:46**	**12:56**	**1:08**	**1:23**	**1:25**	**1:36**
12:50	**12:59**	**1:07**	**1:16**	**1:26**	**1:38**	**1:53**	**1:55**	**2:06**
1:20	**1:29**	**1:37**	**1:46**	**1:56**	**2:08**	**2:23**	**2:25**	**2:36**
—	—	—	—	—	**2:23**	**2:38**	**2:40**	**2:51**
1:50	**1:59**	**2:07**	**2:16**	**2:26**	**2:38**	**2:53**	**2:55**	**3:06**
—	—	—	—	—	**2:52**	**3:07**	**3:09**	**3:20**
2:15	**2:25**	**2:33**	**2:43**	**2:53**	**3:05**	**3:21**	**3:23**	**3:36**
—	—	—	—	—	**3:20**	**3:36**	**3:38**	**3:51**
2:42	**2:52**	**3:00**	**3:10**	**3:21**	**3:34**	**3:51**	**3:53**	**4:07**
—	—	—	—	—	**3:49**	**4:06**	**4:08**	**4:22**
3:09	**3:20**	**3:28**	**3:38**	**3:49**	**4:02**	**4:21**	**4:23**	**4:37**
—	—	—	—	—	**4:17**	**4:36**	**4:38**	**4:52**
3:39	**3:50**	**3:58**	**4:08**	**4:19**	**4:32**	**4:51**	**4:53**	**5:07**
—	—	—	—	—	**4:47**	**5:06**	**5:08**	**5:22**
4:09	**4:20**	**4:28**	**4:38**	**4:49**	**5:02**	**5:21**	**5:23**	**5:37**
—	—	—	—	—	**5:17**	**5:36**	**5:38**	**5:52**
4:39	**4:50**	**4:58**	**5:08**	**5:19**	**5:32**	**5:51**	**5:53**	**6:07**
—	—	—	—	—	**5:47**	**6:06**	**6:08**	**6:22**
5:12	**5:23**	**5:31**	**5:41**	**5:51**	**6:03**	**6:20**	**6:22**	**6:36**
5:44	**5:55**	**6:03**	**6:13**	**6:23**	**6:35**	**6:50**	**6:52**	**7:05**
6:18	**6:28**	**6:36**	**6:45**	**6:55**	**7:06**	**7:20**	**7:22**	**7:34**
6:51	**7:00**	**7:07**	**7:16**	**7:25**	**7:36**	**7:50**	**7:52**	**8:04**
7:22	**7:31**	**7:38**	**7:47**	**7:56**	**8:06**	**8:20**	**8:22**	**8:33**
8:11	**8:19**	**8:25**	**8:33**	**8:42**	**8:52**	**9:05**	**9:07**	**9:18**
9:12	**9:20**	**9:26**	**9:34**	**9:43**	**9:53**	**10:05**	**10:07**	**10:17**

20 Saturday • *sábado*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:11	6:21	6:23	6:36	6:47	—	—	—	—
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:09a	7:12	7:22	7:24	7:38	7:49	—	—	—	—
7:39	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:09	8:12	8:22	8:24	8:38	8:49	—	—	—	—
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:09	9:12	9:22	9:24	9:38	9:49	—	—	—	—
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:08	10:11	10:22	10:24	10:38	10:49	—	—	—	—
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:08	11:11	11:22	11:24	11:38	11:49	—	—	—	—
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:08p	**12:11p**	**12:22p**	**12:24p**	**12:39**	**12:50**	—	—	—	—
12:38	**12:41**	**12:52**	**12:54**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:08	**1:11**	**1:22**	**1:24**	**1:39**	**1:50**	—	—	—	—
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:08	**2:11**	**2:22**	**2:24**	**2:39**	**2:50**	—	—	—	—
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:08	**3:11**	**3:22**	**3:24**	**3:39**	**3:50**	—	—	—	—
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:08	**4:11**	**4:22**	**4:24**	**4:39**	**4:50**	—	—	—	—
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:08	**5:11**	**5:22**	**5:24**	**5:39**	**5:50**	—	—	—	—
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:09	**6:12**	**6:23**	**6:25**	**6:39**	**6:50**	—	—	—	—
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
—	—	—	—	6:12a	6:23a	6:35a	6:37a	6:47a
6:12a	6:20a	6:26a	6:34a	6:42	6:53	7:05	7:07	7:17
—	—	—	—	7:12	7:23	7:35	7:37	7:47
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
—	—	—	—	8:12	8:23	8:35	8:37	8:48
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
—	—	—	—	9:12	9:23	9:35	9:37	9:48
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
—	—	—	—	10:12	10:23	10:35	10:37	10:48
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
—	—	—	—	11:12	11:23	11:36	11:38	11:50
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
—	—	—	—	**12:12p**	**12:23p**	**12:36**	**12:38**	**12:50**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42**	**12:53**	**1:06**	**1:08**	**1:20**
—	—	—	—	**1:12**	**1:23**	**1:36**	**1:38**	**1:50**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
—	—	—	—	**2:12**	**2:23**	**2:36**	**2:38**	**2:50**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
—	—	—	—	**3:12**	**3:23**	**3:36**	**3:38**	**3:50**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
—	—	—	—	**4:12**	**4:23**	**4:36**	**4:38**	**4:50**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
—	—	—	—	**5:12**	**5:23**	**5:36**	**5:38**	**5:50**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
—	—	—	—	**6:11**	**6:22**	**6:35**	**6:37**	**6:48**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
—	—	—	—	**7:11**	**7:22**	**7:35**	**7:37**	**7:48**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**
8:13	**8:21**	**8:27**	**8:35**	**8:43**	**8:53**	**9:05**	**9:07**	**9:17**

20 Sunday • *domingo*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:39a	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:38p	**12:41p**	**12:52p**	**12:54p**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
6:12a	6:20a	6:26a	6:34a	6:42a	6:53a	7:05a	7:07a	7:17a
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42p**	**12:53p**	**1:06**	**1:08**	**1:20**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective August 31, 2025

31

UTC Transit Center ↔ Mira Mesa
via Miramar Road

921

UTC Transit Center ↔ Mira Mesa
via Mira Mesa Boulevard

Bus Routes

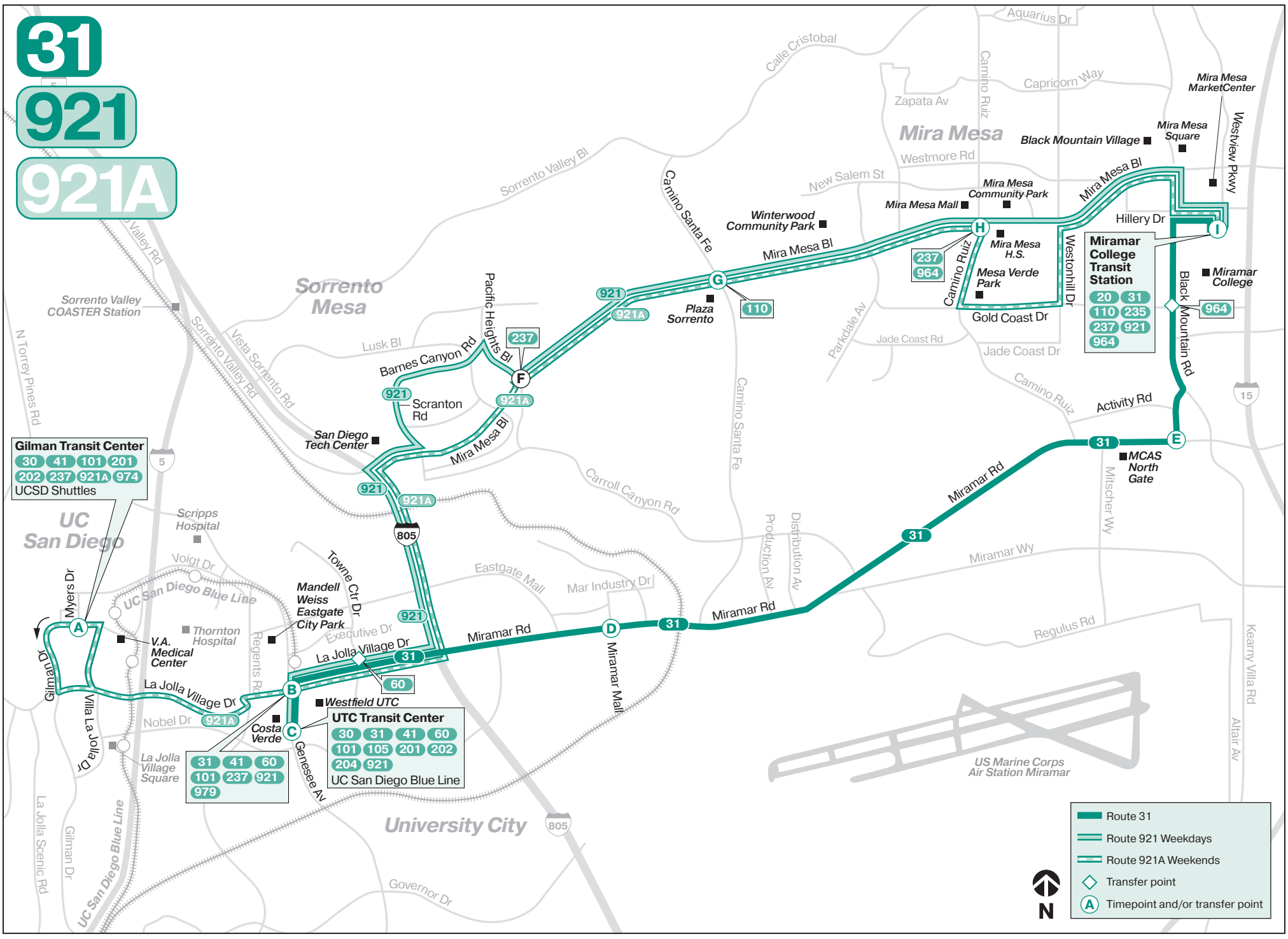
Destinations
- MCAS Miramar - North Gate (31)
- Miramar College Transit Station
- Mira Mesa Marketcenter
- Westfield UTC
- Mira Mesa High School / Mall / Marketcenter
- Sorrento Mesa (921)
- VA Medical Center (921A)
- UC San Diego (921A)

Trolley Connections
- UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS

31
921
921A



31 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C UTC Transit Center **DEPART**	D Miramar Rd. & Miramar Mall	E Black Mountain Rd. & Miramar Rd.	I Miramar College Transit Station **ARRIVE**
6:02a	6:08a	6:18a	6:25a
6:32	6:39	6:50	6:58
7:02	7:09	7:21	7:30
7:32	7:39	7:51	8:00
8:02	8:09	8:20	8:28
8:32	8:39	8:50	8:58
2:30p	**2:38p**	**2:51p**	**2:59p**
3:03	**3:11**	**3:24**	**3:32**
3:33	**3:41**	**3:55**	**4:04**
4:01	**4:09**	**4:23**	**4:32**
4:31	**4:39**	**4:53**	**5:02**
5:03	**5:11**	**5:25**	**5:34**
5:33	**5:41**	**5:55**	**6:04**
6:03	**6:10**	**6:23**	**6:31**
6:33	**6:40**	**6:51**	**6:58**

Miramar College Transit Station → UTC Transit Center

I Miramar College Transit Station **DEPART**	E Black Mountain Rd. & Miramar Rd.	D Miramar Rd. & Miramar Mall	C UTC Transit Center **ARRIVE**
5:39a	5:45a	5:58a	6:05a
6:09	6:15	6:29	6:37
6:39	6:46	7:00	7:09
7:08	7:15	7:29	7:38
7:38	7:46	8:00	8:10
8:08	8:16	8:30	8:40
8:38	8:46	9:00	9:10
9:09	9:17	9:31	9:41
2:41p	**2:48p**	**3:00p**	**3:10p**
3:11	**3:18**	**3:30**	**3:40**
3:41	**3:48**	**4:00**	**4:10**
4:11	**4:18**	**4:31**	**4:42**
4:41	**4:48**	**5:01**	**5:12**
5:11	**5:18**	**5:30**	**5:40**
5:49	**5:56**	**6:07**	**6:16**

Route 31 does not operate on weekends or on the following holidays and observed holidays / *La ruta 31 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

921 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C	F	G	H	I
UTC Transit Center **DEPART**	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Camino Ruiz	Miramar College Transit Station **ARRIVE**
6:17a	6:33a	6:38a	6:44a	6:53a
6:41	6:57	7:02	7:08	7:17
7:11	7:27	7:32	7:38	7:47
7:35	7:53	7:59	8:06	8:15
8:05	8:23	8:29	8:36	8:45
8:35	8:53	8:59	9:06	9:15
9:08	9:24	9:29	9:36	9:45
9:38	9:54	9:59	10:06	10:15
10:08	10:24	10:29	10:36	10:45
10:38	10:54	10:59	11:06	11:15
11:08	11:24	11:29	11:36	11:45
11:38	11:54	11:59	**12:06p**	**12:15p**
12:08p	**12:24p**	**12:29p**	**12:36**	**12:45**
12:38	**12:54**	**12:59**	**1:06**	**1:15**
1:06	**1:23**	**1:28**	**1:35**	**1:45**
1:36	**1:53**	**1:58**	**2:05**	**2:15**
2:11	**2:28**	**2:33**	**2:40**	**2:50**
2:41	**2:58**	**3:03**	**3:10**	**3:20**
3:11	**3:28**	**3:33**	**3:40**	**3:50**
3:39	**3:56**	**4:02**	**4:09**	**4:20**
4:06	**4:24**	**4:30**	**4:38**	**4:50**
4:36	**4:54**	**5:00**	**5:08**	**5:20**
5:06	**5:24**	**5:30**	**5:38**	**5:50**
5:31	**5:49**	**5:55**	**6:03**	**6:15**
6:04	**6:21**	**6:26**	**6:34**	**6:45**
6:36	**6:53**	**6:58**	**7:05**	**7:15**
7:07	**7:24**	**7:29**	**7:36**	**7:46**

Miramar College Transit Station → UTC Transit Center

I	H	G	F	C
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Pacific Heights Bl. & Mira Mesa Bl.	UTC Transit Center **ARRIVE**
5:35a	5:44a	5:50a	5:55a	6:12a
6:09	6:18	6:24	6:29	6:47
6:39	6:48	6:54	6:59	7:16
7:09	7:19	7:26	7:31	7:50
7:39	7:49	7:56	8:01	8:20
8:09	8:19	8:26	8:31	8:50
8:39	8:49	8:56	9:01	9:20
9:09	9:19	9:26	9:31	9:50
9:44	9:53	9:59	10:04	10:22
10:14	10:23	10:29	10:34	10:52
10:44	10:53	10:59	11:04	11:22
11:14	11:23	11:29	11:34	11:52
11:44	11:53	11:59	**12:04p**	**12:22p**
12:14p	**12:23p**	**12:29p**	**12:34**	**12:52**
12:44	**12:53**	**12:59**	**1:04**	**1:22**
1:14	**1:23**	**1:29**	**1:34**	**1:52**
1:44	**1:53**	**1:59**	**2:04**	**2:22**
2:14	**2:23**	**2:29**	**2:34**	**2:54**
2:39	**2:48**	**2:54**	**2:59**	**3:21**
3:06	**3:15**	**3:21**	**3:26**	**3:48**
3:36	**3:45**	**3:51**	**3:56**	**4:18**
4:07	**4:16**	**4:22**	**4:27**	**4:49**
4:37	**4:46**	**4:52**	**4:57**	**5:19**
5:07	**5:16**	**5:22**	**5:27**	**5:49**
5:37	**5:46**	**5:52**	**5:57**	**6:19**
6:07	**6:16**	**6:22**	**6:27**	**6:46**
6:35	**6:44**	**6:50**	**6:55**	**7:14**

921A Saturday and Sunday • *sábado y domingo*

Gilman Transit Center → Miramar College Transit Station

A	B	F	G	H	I
Gilman Transit Center (UCSD) **DEPART**	La Jolla Village Dr. & Genesee Av.	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Camino Ruiz & Mira Mesa Bl.	Miramar College Transit Station **ARRIVE**
A 7:19a	7:29a	7:37a	7:40a	7:45a	7:57a
A 8:19	8:29	8:37	8:40	8:45	8:57
A 9:19	9:30	9:39	9:42	9:48	10:01
A 10:19	10:30	10:39	10:42	10:48	11:01
A 11:19	11:30	11:39	11:42	11:48	**12:01p**
A **12:19p**	**12:30p**	**12:39p**	**12:42p**	**12:48p**	**1:01**
A **1:19**	**1:30**	**1:39**	**1:42**	**1:48**	**2:01**
A **2:19**	**2:30**	**2:39**	**2:42**	**2:48**	**3:01**
A **3:19**	**3:30**	**3:39**	**3:42**	**3:48**	**4:01**
A **4:19**	**4:30**	**4:39**	**4:42**	**4:48**	**5:01**
A **5:18**	**5:29**	**5:38**	**5:41**	**5:47**	**6:00**
A **6:18**	**6:29**	**6:38**	**6:41**	**6:47**	**7:00**
A **7:22**	**7:32**	**7:40**	**7:43**	**7:48**	**8:00**

Miramar College Transit Station → Gilman Transit Center

I	H	G	F	B	A
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Pacific Heights Bl.	La Jolla Village Dr. & Genesee Av.	Gilman Transit Center (UCSD) **ARRIVE**
A 7:27a	7:39a	7:44a	7:47a	7:55a	8:04a
A 8:27	8:39	8:44	8:47	8:55	9:04
A 9:28	9:42	9:47	9:50	9:59	10:09
A 10:28	10:42	10:47	10:50	10:59	11:09
A 11:28	11:42	11:47	11:50	11:59	**12:09p**
A **12:28p**	**12:42p**	**12:47p**	**12:50p**	**12:59p**	**1:09**
A **1:28**	**1:42**	**1:47**	**1:50**	**1:59**	**2:09**
A **2:28**	**2:42**	**2:47**	**2:50**	**2:59**	**3:09**
A **3:28**	**3:42**	**3:47**	**3:50**	**3:59**	**4:09**
A **4:27**	**4:41**	**4:46**	**4:49**	**4:58**	**5:08**
A **5:27**	**5:41**	**5:46**	**5:49**	**5:58**	**6:08**
A **6:27**	**6:41**	**6:46**	**6:49**	**6:58**	**7:08**

A = Saturday/Sunday trips have an alternate routing in Mira Mesa & Sorrento Mesa. See map. / *Viajes de sábado/domingo tienen ruta alternativa en Mira Mesa y Sorrento Mesa. Vea el mapa.*

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective June 30, 2023

20

Downtown San Diego ↔ Rancho Bernardo Station
via Fashion Valley

110

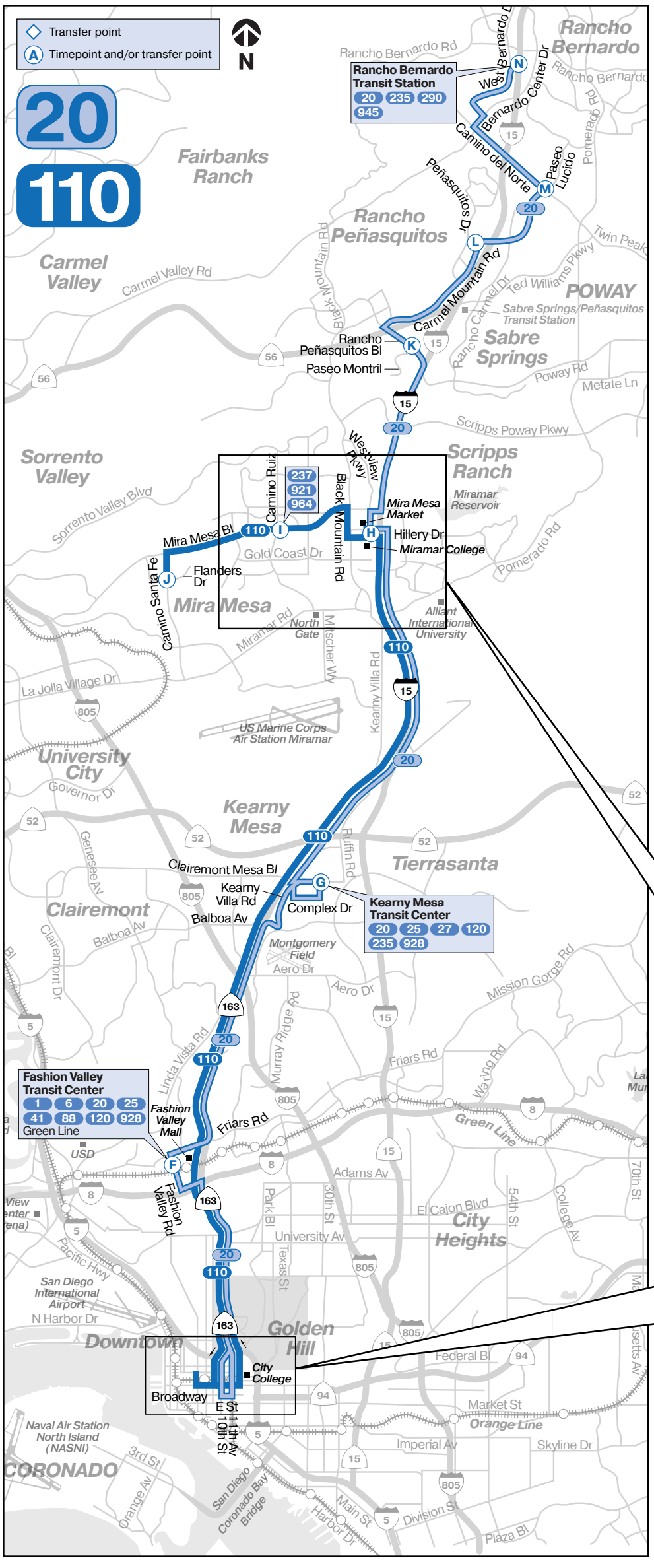
Downtown San Diego ↔ Mira Mesa Express
via I-15 / Hwy 163

Bus Routes

Destinations
- City College
- Downtown Courthouse (110)
- Fashion Valley Mall (20)
- Miramar College
- Mira Mesa Market

Trolley Connections
- City College
- Fashion Valley (20)

Subject to change without notice
Sujeto a cambios sin previo aviso



110 Monday through Friday • *lunes a viernes*

Morning Only

Mira Mesa → Downtown San Diego

J Camino Santa Fe & Flanders Dr. **DEPART**	I Mira Mesa Bl. & Camino Ruiz	H Miramar College Transit Station	D 10th Av. & B St.	C Broadway & 5th Av.	B Broadway & Union St. **ARRIVE**
6:02a	6:07a	6:15a	6:33a	6:37a	6:41a
6:22	6:27	6:35	6:53	6:57	7:01
6:41	6:46	6:55	7:14	7:18	7:23
7:04	7:10	7:20	7:41	7:45	7:51

110 Monday through Friday • *lunes a viernes*

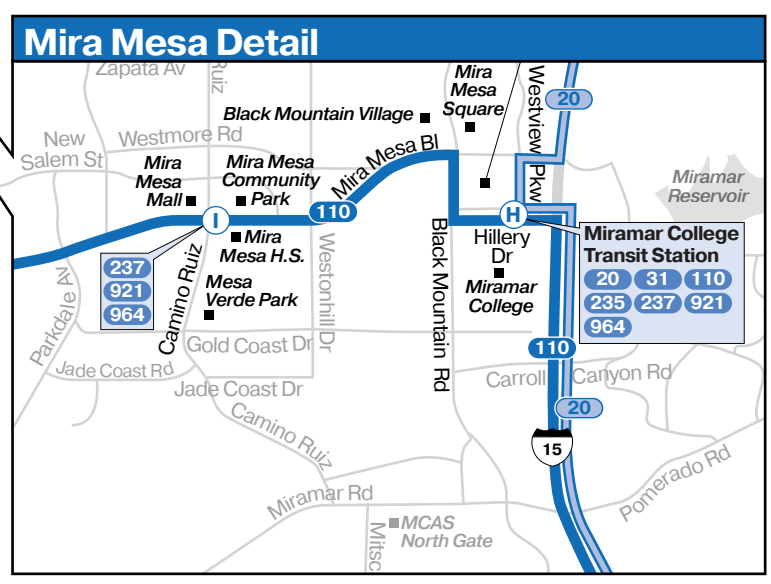
Afternoon Only

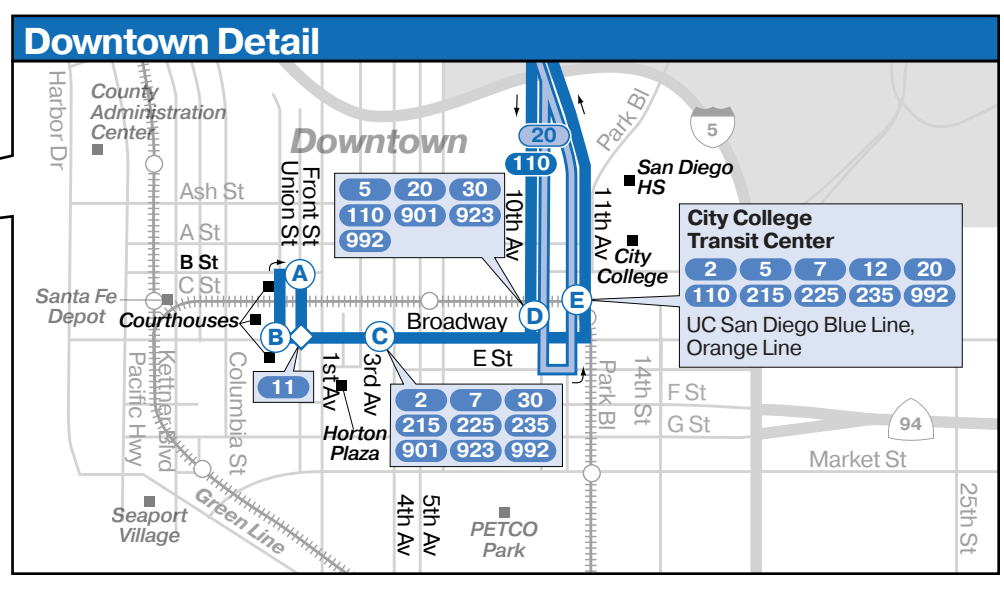
Downtown San Diego → Mira Mesa

A Front St. & B St. **DEPART**	C Broadway & 3rd Av.	E City College Transit Center (11th & B)	H Miramar College Transit Station	I Mira Mesa Bl. & Camino Ruiz	J Camino Santa Fe & Flanders Dr. **ARRIVE**
4:01p	**4:05p**	**4:12p**	**4:35p**	**4:46p**	**4:55p**
4:26	**4:30**	**4:37**	**5:00**	**5:11**	**5:20**
4:51	**4:55**	**5:02**	**5:26**	**5:37**	**5:47**
5:21	**5:25**	**5:32**	**5:56**	**6:07**	**6:17**

Gray-shaded times are approximate; trip may run earlier than scheduled. / *Los tiempos sombreados en gris son aproximados; los viajes pueden operar más temprano de lo que se indica.*

Route 110 does not operate on weekends or on the following holidays and observed holidays:
La ruta 110 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados: **New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas**





20 Monday through Friday • *lunes a viernes*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	4:56a	5:06a	5:08a	5:21a	5:32a	5:39a	5:47a	5:53a	6:01a
—	5:26	5:36	5:38	5:52	6:03	6:10	6:18	6:25	6:34
—	5:41	5:51	5:53	6:08	—	—	—	—	—
5:53a	5:56	6:06	6:08	6:23	6:34	6:42	6:50	6:57	7:07
6:08	6:11	6:21	6:23	6:38	—	—	—	—	—
6:23	6:26	6:36	6:38	6:54	7:06	7:14	7:23	7:30	7:40
6:38	6:41	6:51	6:53	7:09	—	—	—	—	—
6:53	6:56	7:06	7:08	7:24	7:36	7:44	7:53	8:00	8:10
7:08	7:11	7:21	7:23	7:39	—	—	—	—	—
7:23	7:26	7:36	7:38	7:54	8:06	8:14	8:23	8:30	8:41
7:38	7:41	7:51	7:53	8:09	—	—	—	—	—
7:53	7:56	8:06	8:08	8:24	8:36	8:44	8:53	9:00	9:11
8:08	8:11	8:21	8:23	8:39	—	—	—	—	—
8:23	8:26	8:36	8:38	8:54	9:06	9:14	9:23	9:30	9:41
8:38	8:41	8:51	8:53	9:08	—	—	—	—	—
8:53	8:56	9:06	9:08	9:23	9:34	9:42	9:51	9:58	10:08
9:23	9:26	9:36	9:38	9:53	10:04	10:12	10:21	10:28	10:38
9:53	9:56	10:06	10:08	10:23	10:34	10:42	10:51	10:58	11:08
10:23	10:26	10:36	10:38	10:53	11:04	11:12	11:21	11:28	11:38
10:53	10:56	11:06	11:08	11:23	11:34	11:42	11:51	11:58	**12:08p**
11:23	11:26	11:36	11:38	11:53	**12:04p**	**12:12p**	**12:21p**	**12:28p**	**12:38**
11:53	11:56	**12:07p**	**12:09p**	**12:24p**	**12:35**	**12:44**	**12:53**	**1:00**	**1:10**
12:23p	**12:26p**	**12:37**	**12:39**	**12:54**	**1:05**	**1:14**	**1:23**	**1:30**	**1:40**
12:53	**12:56**	**1:07**	**1:09**	**1:24**	**1:35**	**1:44**	**1:53**	**2:00**	**2:10**
1:23	**1:26**	**1:37**	**1:39**	**1:55**	**2:06**	**2:15**	**2:25**	**2:32**	**2:42**
1:53	**1:56**	**2:07**	**2:09**	**2:26**	**2:37**	**2:46**	**2:56**	**3:03**	**3:13**
2:23	**2:26**	**2:37**	**2:39**	**2:56**	**3:08**	**3:18**	**3:29**	**3:36**	**3:47**
2:52	**2:55**	**3:06**	**3:08**	**3:25**	**3:37**	**3:47**	**3:58**	**4:05**	**4:16**
3:07	**3:10**	**3:21**	**3:23**	**3:40**	—	—	—	—	—
3:22	**3:25**	**3:36**	**3:38**	**3:55**	**4:08**	**4:18**	**4:29**	**4:36**	**4:47**
3:37	**3:40**	**3:51**	**3:53**	**4:10**	—	—	—	—	—
3:52	**3:55**	**4:06**	**4:08**	**4:25**	**4:38**	**4:48**	**4:59**	**5:06**	**5:17**
4:07	**4:10**	**4:21**	**4:23**	**4:40**	—	—	—	—	—
4:22	**4:25**	**4:36**	**4:38**	**4:55**	**5:08**	**5:18**	**5:29**	**5:36**	**5:47**
4:37	**4:40**	**4:51**	**4:53**	**5:10**	—	—	—	—	—
4:52	**4:55**	**5:06**	**5:08**	**5:25**	**5:38**	**5:48**	**5:59**	**6:06**	**6:17**
5:07	**5:10**	**5:21**	**5:23**	**5:40**	—	—	—	—	—
5:23	**5:26**	**5:37**	**5:39**	**5:55**	**6:08**	**6:18**	**6:28**	**6:35**	**6:45**
5:53	**5:56**	**6:07**	**6:09**	**6:24**	**6:36**	**6:45**	**6:54**	**7:01**	**7:10**
6:23	**6:26**	**6:37**	**6:39**	**6:54**	**7:06**	**7:15**	**7:24**	**7:31**	**7:40**
6:54	**6:57**	**7:07**	**7:09**	**7:23**	**7:35**	**7:44**	**7:53**	**8:00**	**8:08**
7:24	**7:27**	**7:37**	**7:39**	**7:53**	**8:04**	**8:12**	**8:20**	**8:26**	**8:34**
7:54	**7:57**	**8:07**	**8:09**	**8:23**	**8:34**	**8:42**	**8:50**	**8:56**	**9:04**
8:54	**8:57**	**9:07**	**9:09**	**9:23**	—	—	—	—	—

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
5:13a	5:21a	5:27a	5:36a	5:45a	5:55a	6:08a	6:10a	6:21a
5:42	5:50	5:57	6:06	6:15	6:25	6:38	6:40	6:51
—	—	—	—	—	6:54	7:08	7:10	7:21
6:19	6:28	6:35	6:46	6:58	7:09	7:23	7:25	7:36
—	—	—	—	—	7:24	7:38	7:40	7:52
6:47	6:57	7:04	7:16	7:28	7:39	7:53	7:55	8:07
—	—	—	—	—	7:54	8:08	8:10	8:22
7:17	7:27	7:34	7:46	7:58	8:09	8:23	8:25	8:37
—	—	—	—	—	8:25	8:39	8:41	8:53
7:49	7:59	8:06	8:17	8:29	8:40	8:54	8:56	9:08
8:19	8:29	8:36	8:47	8:59	9:10	9:24	9:26	9:37
8:50	9:00	9:07	9:17	9:28	9:39	9:53	9:55	10:06
9:24	9:33	9:40	9:49	9:58	10:09	10:23	10:25	10:36
9:54	10:03	10:10	10:19	10:28	10:39	10:53	10:55	11:06
10:24	10:33	10:40	10:49	10:58	11:09	11:23	11:25	11:36
10:50	10:59	11:07	11:16	11:26	11:38	11:53	11:55	**12:06p**
11:20	11:29	11:37	11:46	11:56	**12:08p**	**12:23p**	**12:25p**	**12:36**
11:50	11:59	**12:07p**	**12:16p**	**12:26p**	**12:38**	**12:53**	**12:55**	**1:06**
12:20p	**12:29p**	**12:37**	**12:46**	**12:56**	**1:08**	**1:23**	**1:25**	**1:36**
12:50	**12:59**	**1:07**	**1:16**	**1:26**	**1:38**	**1:53**	**1:55**	**2:06**
1:20	**1:29**	**1:37**	**1:46**	**1:56**	**2:08**	**2:23**	**2:25**	**2:36**
—	—	—	—	—	**2:23**	**2:38**	**2:40**	**2:51**
1:50	**1:59**	**2:07**	**2:16**	**2:26**	**2:38**	**2:53**	**2:55**	**3:06**
—	—	—	—	—	**2:52**	**3:07**	**3:09**	**3:20**
2:15	**2:25**	**2:33**	**2:43**	**2:53**	**3:05**	**3:21**	**3:23**	**3:36**
—	—	—	—	—	**3:20**	**3:36**	**3:38**	**3:51**
2:42	**2:52**	**3:00**	**3:10**	**3:21**	**3:34**	**3:51**	**3:53**	**4:07**
—	—	—	—	—	**3:49**	**4:06**	**4:08**	**4:22**
3:09	**3:20**	**3:28**	**3:38**	**3:49**	**4:02**	**4:21**	**4:23**	**4:37**
—	—	—	—	—	**4:17**	**4:36**	**4:38**	**4:52**
3:39	**3:50**	**3:58**	**4:08**	**4:19**	**4:32**	**4:51**	**4:53**	**5:07**
—	—	—	—	—	**4:47**	**5:06**	**5:08**	**5:22**
4:09	**4:20**	**4:28**	**4:38**	**4:49**	**5:02**	**5:21**	**5:23**	**5:37**
—	—	—	—	—	**5:17**	**5:36**	**5:38**	**5:52**
4:39	**4:50**	**4:58**	**5:08**	**5:19**	**5:32**	**5:51**	**5:53**	**6:07**
—	—	—	—	—	**5:47**	**6:06**	**6:08**	**6:22**
5:12	**5:23**	**5:31**	**5:41**	**5:51**	**6:03**	**6:20**	**6:22**	**6:36**
5:44	**5:55**	**6:03**	**6:13**	**6:23**	**6:35**	**6:50**	**6:52**	**7:05**
6:18	**6:28**	**6:36**	**6:45**	**6:55**	**7:06**	**7:20**	**7:22**	**7:34**
6:51	**7:00**	**7:07**	**7:16**	**7:25**	**7:36**	**7:50**	**7:52**	**8:04**
7:22	**7:31**	**7:38**	**7:47**	**7:56**	**8:06**	**8:20**	**8:22**	**8:33**
8:11	**8:19**	**8:25**	**8:33**	**8:42**	**8:52**	**9:05**	**9:07**	**9:18**
9:12	**9:20**	**9:26**	**9:34**	**9:43**	**9:53**	**10:05**	**10:07**	**10:17**

20 Saturday • *sábado*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:11	6:21	6:23	6:36	6:47	—	—	—	—
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:09a	7:12	7:22	7:24	7:38	7:49	—	—	—	—
7:39	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:09	8:12	8:22	8:24	8:38	8:49	—	—	—	—
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:09	9:12	9:22	9:24	9:38	9:49	—	—	—	—
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:08	10:11	10:22	10:24	10:38	10:49	—	—	—	—
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:08	11:11	11:22	11:24	11:38	11:49	—	—	—	—
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:08p	**12:11p**	**12:22p**	**12:24p**	**12:39**	**12:50**	—	—	—	—
12:38	**12:41**	**12:52**	**12:54**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:08	**1:11**	**1:22**	**1:24**	**1:39**	**1:50**	—	—	—	—
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:08	**2:11**	**2:22**	**2:24**	**2:39**	**2:50**	—	—	—	—
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:08	**3:11**	**3:22**	**3:24**	**3:39**	**3:50**	—	—	—	—
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:08	**4:11**	**4:22**	**4:24**	**4:39**	**4:50**	—	—	—	—
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:08	**5:11**	**5:22**	**5:24**	**5:39**	**5:50**	—	—	—	—
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:09	**6:12**	**6:23**	**6:25**	**6:39**	**6:50**	—	—	—	—
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
—	—	—	—	6:12a	6:23a	6:35a	6:37a	6:47a
6:12a	6:20a	6:26a	6:34a	6:42	6:53	7:05	7:07	7:17
—	—	—	—	7:12	7:23	7:35	7:37	7:47
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
—	—	—	—	8:12	8:23	8:35	8:37	8:48
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
—	—	—	—	9:12	9:23	9:35	9:37	9:48
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
—	—	—	—	10:12	10:23	10:35	10:37	10:48
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
—	—	—	—	11:12	11:23	11:36	11:38	11:50
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
—	—	—	—	**12:12p**	**12:23p**	**12:36**	**12:38**	**12:50**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42**	**12:53**	**1:06**	**1:08**	**1:20**
—	—	—	—	**1:12**	**1:23**	**1:36**	**1:38**	**1:50**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
—	—	—	—	**2:12**	**2:23**	**2:36**	**2:38**	**2:50**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
—	—	—	—	**3:12**	**3:23**	**3:36**	**3:38**	**3:50**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
—	—	—	—	**4:12**	**4:23**	**4:36**	**4:38**	**4:50**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
—	—	—	—	**5:12**	**5:23**	**5:36**	**5:38**	**5:50**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
—	—	—	—	**6:11**	**6:22**	**6:35**	**6:37**	**6:48**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
—	—	—	—	**7:11**	**7:22**	**7:35**	**7:37**	**7:48**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**
8:13	**8:21**	**8:27**	**8:35**	**8:43**	**8:53**	**9:05**	**9:07**	**9:17**

20 Sunday • *domingo*

Downtown San Diego → Rancho Bernardo

D	E	F		G	H	K	L	M	N
10th Av. & Broadway **DEPART**	City College Transit Center (11th & C)	Fashion Valley Transit Center **ARRIVE**	**DEPART**	Kearny Mesa Transit Center	Miramar College Transit Station	Rancho Peñasquitos Bl. & Paseo Montril	Carmel Mtn. Rd. & Peñasquitos Dr.	Camino Del Norte & Paseo Lucido	Rancho Bernardo Transit Station **ARRIVE**
—	5:41a	5:51a	5:53a	6:06a	6:17a	6:24a	6:32a	6:38a	6:46a
—	6:41	6:51	6:53	7:07	7:18	7:26	7:34	7:40	7:48
7:39a	7:42	7:52	7:54	8:08	8:19	8:27	8:35	8:41	8:49
8:39	8:42	8:52	8:54	9:08	9:19	9:27	9:36	9:43	9:51
9:39	9:42	9:52	9:54	10:08	10:19	10:27	10:36	10:43	10:51
10:38	10:41	10:52	10:54	11:08	11:19	11:28	11:37	11:44	11:53
11:38	11:41	11:52	11:54	**12:08p**	**12:19p**	**12:28p**	**12:37p**	**12:44p**	**12:53p**
12:38p	**12:41p**	**12:52p**	**12:54p**	**1:09**	**1:20**	**1:29**	**1:38**	**1:45**	**1:55**
1:38	**1:41**	**1:52**	**1:54**	**2:09**	**2:20**	**2:29**	**2:38**	**2:45**	**2:55**
2:38	**2:41**	**2:52**	**2:54**	**3:09**	**3:20**	**3:29**	**3:38**	**3:45**	**3:55**
3:38	**3:41**	**3:52**	**3:54**	**4:09**	**4:20**	**4:29**	**4:38**	**4:45**	**4:55**
4:38	**4:41**	**4:52**	**4:54**	**5:09**	**5:20**	**5:29**	**5:38**	**5:45**	**5:55**
5:39	**5:42**	**5:53**	**5:55**	**6:09**	**6:20**	**6:29**	**6:38**	**6:45**	**6:54**
6:39	**6:42**	**6:53**	**6:55**	**7:09**	**7:20**	**7:29**	**7:38**	**7:45**	**7:54**
7:39	**7:42**	**7:52**	**7:54**	**8:07**	**8:18**	**8:26**	**8:34**	**8:41**	**8:49**

Rancho Bernardo → Downtown San Diego

N	M	L	K	H	G	F		D
Rancho Bernardo Transit Station **DEPART**	Carmel Mtn. Rd. & Camino Del Norte	Carmel Mtn. Rd. & Peñasquitos Dr.	Rancho Peñasquitos Bl. & Paseo Montril	Miramar College Transit Station	Kearny Mesa Transit Center	Fashion Valley Transit Center **ARRIVE**	**DEPART**	10th Av. & Broadway **ARRIVE**
6:12a	6:20a	6:26a	6:34a	6:42a	6:53a	7:05a	7:07a	7:17a
7:10	7:18	7:25	7:34	7:42	7:53	8:05	8:07	8:17
8:08	8:16	8:23	8:33	8:42	8:53	9:05	9:07	9:18
9:08	9:16	9:23	9:33	9:42	9:53	10:05	10:07	10:18
10:06	10:15	10:23	10:33	10:42	10:53	11:05	11:07	11:18
11:05	11:15	11:23	11:33	11:42	11:53	**12:06p**	**12:08p**	**12:20p**
12:05p	**12:15p**	**12:23p**	**12:33p**	**12:42p**	**12:53p**	**1:06**	**1:08**	**1:20**
1:05	**1:15**	**1:23**	**1:33**	**1:42**	**1:53**	**2:06**	**2:08**	**2:20**
2:05	**2:15**	**2:23**	**2:33**	**2:42**	**2:53**	**3:06**	**3:08**	**3:20**
3:05	**3:15**	**3:23**	**3:33**	**3:42**	**3:53**	**4:06**	**4:08**	**4:20**
4:05	**4:15**	**4:23**	**4:33**	**4:42**	**4:53**	**5:06**	**5:08**	**5:20**
5:05	**5:15**	**5:23**	**5:33**	**5:42**	**5:53**	**6:06**	**6:08**	**6:20**
6:06	**6:15**	**6:23**	**6:32**	**6:41**	**6:52**	**7:05**	**7:07**	**7:18**
7:06	**7:15**	**7:23**	**7:32**	**7:41**	**7:52**	**8:05**	**8:07**	**8:18**

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

Fare Information
Información de tarifas
sdmts.com/fares

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MTS sdmts.com

MTS Security *MTS Seguridad*	**619-595-4960**
MTS Information & Trip Planning *MTS Información y planeo de viaje*	**619-233-3004**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

Buses on all MTS routes are accessible via lift or ramp.
Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

Alternative formats available upon request. Call: (619) 557-4555.
Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective September 3, 2023

Rapid 235

Bus Route

Escondido Transit Center ↔ Downtown San Diego

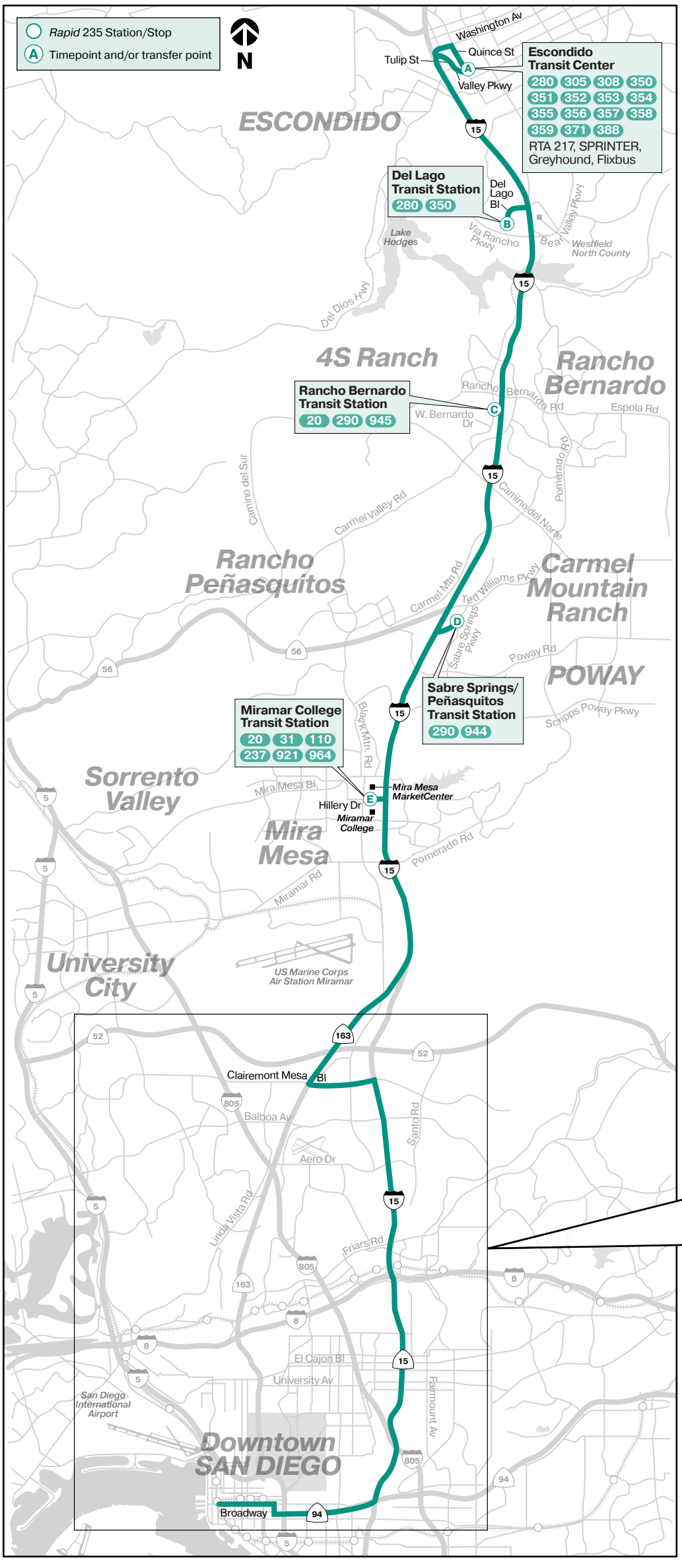
via I-15

Destinations
- Boulevard Transit Plaza
- City Heights Transit Plaza
- Del Lago Transit Station
- Kearny Mesa Transit Center
- Miramar College Transit Station
- Rancho Bernardo Transit Station
- Sabre Springs/Peñasquitos Transit Station

Trolley Connections
- City College
- America Plaza
- Santa Fe Depot

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS



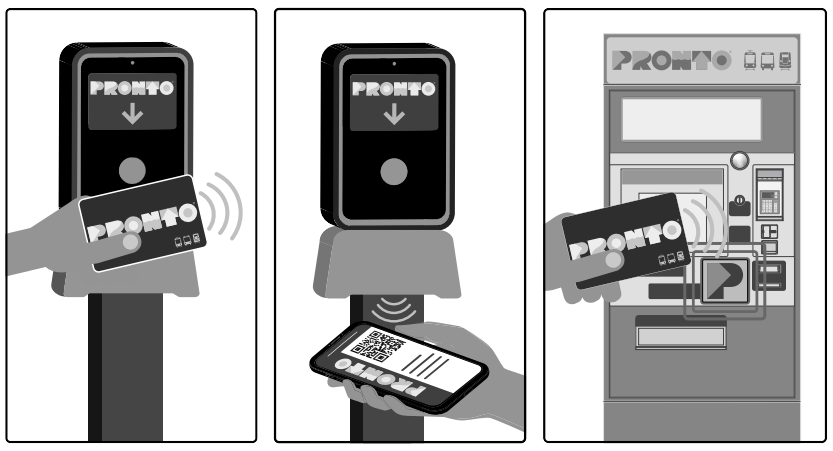
Downtown Boarding Locations

Towards Escondido:
Kettner Bl. at Santa Fe Depot
Broadway at 1st Av. (Courthouses)
Broadway at 5th Av. (Horton Plaza)
Broadway at Park Bl. (City College T.C.)

Towards Santa Fe Depot:
Broadway at Park Bl. (City College T.C.)
Broadway at 4th Av. (Horton Plaza)
Broadway at Union St. (Courthouses)

PRONTO

TAP or SCAN -
Required Before Boarding
TOCA o ESCANEA -
Se requiere antes de abordar



619-595-5636
RidePRONTO.com

Southern Area Detail

235 Monday through Friday • *lunes a viernes*

Escondido Transit Center → Downtown San Diego

A	B	C	D	E	F	G	H	I	J
Escondido Transit Center **DEPART**	Del Lago Transit Station	Rancho Bernardo Transit Station	Sabre Springs/ Peñasquitos T.S.	Miramar College Transit Station	Kearny Mesa Transit Center	Boulevard Transit Plaza (El Cajon Bl.)	City Heights Transit Plaza (Univ. Av.)	City College Transit Center (Broadway)	America Plaza Trolley Station **ARRIVE**
—	—	—	—	—	4:58a	5:08a	5:10a	5:19a	5:26a
—	—	—	—	—	5:13	5:23	5:25	5:34	5:41
—	—	—	—	5:18a	5:28	5:38	5:40	5:49	5:56
5:00a	5:09a	5:17a	5:24a	5:33	5:43	5:53	5:55	6:04	6:11
—	—	—	—	5:48	5:59	6:09	6:11	6:21	6:28
5:33	5:42	5:50	5:57	6:06	6:17	6:27	6:29	6:40	6:47
—	—	—	—	6:21	6:32	6:43	6:45	6:57	7:05
6:03	6:12	6:20	6:27	6:36	6:47	6:58	7:00	7:12	7:20
6:18	6:27	6:35	6:42	6:51	7:02	7:13	7:15	7:27	7:35
6:30	6:40	6:48	6:55	7:04	7:15	7:26	7:28	7:41	7:50
6:46	6:56	7:04	7:11	7:20	7:31	7:42	7:44	7:57	8:06
7:01	7:11	7:19	7:26	7:35	7:46	7:57	7:59	8:12	8:21
7:16	7:26	7:34	7:41	7:50	8:01	8:12	8:14	8:27	8:36
7:31	7:41	7:49	7:56	8:05	8:16	8:27	8:29	8:42	8:51
7:46	7:56	8:04	8:11	8:20	8:31	8:42	8:44	8:57	9:06
8:01	8:11	8:19	8:26	8:35	8:46	8:57	8:59	9:11	9:20
8:17	8:26	8:34	8:41	8:50	9:01	9:12	9:14	9:26	9:35
8:33	8:42	8:50	8:57	9:06	9:17	9:28	9:30	9:41	9:50
8:48	8:57	9:05	9:12	9:21	9:32	9:43	9:45	9:56	10:05
9:03	9:12	9:20	9:27	9:36	9:47	9:58	10:00	10:11	10:20
9:18	9:27	9:35	9:42	9:51	10:02	10:13	10:15	10:26	10:35
9:33	9:42	9:50	9:57	10:06	10:17	10:28	10:30	10:41	10:50
9:48	9:57	10:05	10:12	10:21	10:32	10:43	10:45	10:56	11:05
10:03	10:12	10:20	10:27	10:36	10:47	10:58	11:00	11:11	11:20
10:18	10:27	10:35	10:42	10:51	11:02	11:13	11:15	11:26	11:35
10:32	10:41	10:49	10:56	11:05	11:16	11:28	11:30	11:41	11:50
10:47	10:56	11:04	11:11	11:20	11:31	11:43	11:45	11:56	**12:05p**
11:02	11:11	11:19	11:26	11:35	11:46	11:58	**12:00p**	**12:11p**	**12:20**
11:17	11:26	11:34	11:41	11:50	**12:01p**	**12:13p**	**12:15**	**12:26**	**12:35**
11:32	11:41	11:49	11:56	**12:05p**	**12:16**	**12:28**	**12:30**	**12:41**	**12:50**
11:47	11:56	**12:04p**	**12:11p**	**12:20**	**12:31**	**12:43**	**12:45**	**12:56**	**1:05**
12:02p	**12:11p**	**12:19**	**12:26**	**12:35**	**12:46**	**12:58**	**1:00**	**1:11**	**1:20**
12:17	**12:26**	**12:34**	**12:41**	**12:50**	**1:01**	**1:13**	**1:15**	**1:26**	**1:35**
12:32	**12:41**	**12:49**	**12:56**	**1:05**	**1:16**	**1:28**	**1:30**	**1:41**	**1:50**
12:47	**12:56**	**1:04**	**1:11**	**1:20**	**1:31**	**1:43**	**1:45**	**1:56**	**2:05**
1:02	**1:11**	**1:19**	**1:26**	**1:35**	**1:46**	**1:58**	**2:00**	**2:11**	**2:20**
1:17	**1:26**	**1:34**	**1:41**	**1:50**	**2:01**	**2:13**	**2:15**	**2:26**	**2:35**
1:32	**1:41**	**1:49**	**1:56**	**2:05**	**2:16**	**2:28**	**2:30**	**2:41**	**2:50**
1:47	**1:56**	**2:04**	**2:11**	**2:20**	**2:31**	**2:43**	**2:45**	**2:56**	**3:05**
2:02	**2:11**	**2:19**	**2:26**	**2:35**	**2:46**	**2:58**	**3:00**	**3:11**	**3:20**
2:16	**2:25**	**2:33**	**2:40**	**2:49**	**3:00**	**3:12**	**3:14**	**3:25**	**3:34**
2:29	**2:38**	**2:46**	**2:53**	**3:02**	**3:13**	**3:26**	**3:28**	**3:40**	**3:49**
2:42	**2:52**	**3:00**	**3:07**	**3:16**	**3:28**	**3:42**	**3:44**	**3:57**	**4:06**
2:55	**3:05**	**3:13**	**3:20**	**3:29**	**3:41**	**3:56**	**3:58**	**4:12**	**4:21**
3:10	**3:20**	**3:28**	**3:35**	**3:44**	**3:56**	**4:11**	**4:13**	**4:27**	**4:36**
3:23	**3:33**	**3:41**	**3:48**	**3:57**	**4:10**	**4:26**	**4:28**	**4:43**	**4:52**
3:39	**3:49**	**3:57**	**4:04**	**4:13**	**4:26**	**4:42**	**4:44**	**4:59**	**5:08**
3:54	**4:04**	**4:12**	**4:19**	**4:28**	**4:41**	**4:58**	**5:00**	**5:15**	**5:24**
4:09	**4:19**	**4:27**	**4:34**	**4:43**	**4:56**	**5:13**	**5:15**	**5:30**	**5:39**
4:24	**4:34**	**4:42**	**4:49**	**4:58**	**5:11**	**5:28**	**5:30**	**5:45**	**5:54**
4:39	**4:49**	**4:57**	**5:04**	**5:13**	**5:26**	**5:43**	**5:45**	**6:00**	**6:09**
4:54	**5:04**	**5:12**	**5:19**	**5:28**	**5:41**	**5:58**	**6:00**	**6:15**	**6:23**
5:10	**5:20**	**5:28**	**5:35**	**5:44**	**5:57**	**6:12**	**6:14**	**6:29**	**6:37**
5:27	**5:37**	**5:45**	**5:52**	**6:01**	**6:13**	**6:27**	**6:29**	**6:43**	**6:51**
5:46	**5:55**	**6:03**	**6:10**	**6:19**	**6:30**	**6:43**	**6:45**	**6:58**	**7:06**
6:02	**6:11**	**6:19**	**6:26**	**6:35**	**6:46**	**6:58**	**7:00**	**7:11**	**7:19**
6:17	**6:26**	**6:34**	**6:41**	**6:50**	**7:01**	**7:13**	**7:15**	**7:26**	**7:34**
6:32	**6:41**	**6:49**	**6:56**	**7:05**	**7:16**	**7:28**	**7:30**	**7:41**	**7:49**
6:47	**6:56**	**7:04**	**7:11**	**7:20**	**7:31**	**7:43**	**7:45**	**7:56**	**8:04**
7:06	**7:15**	**7:23**	**7:30**	**7:39**	**7:49**	**8:00**	**8:02**	**8:12**	**8:20**
7:36	**7:45**	**7:53**	**8:00**	**8:09**	**8:19**	**8:30**	**8:32**	**8:42**	**8:50**
8:05	**8:14**	**8:22**	**8:29**	**8:38**	**8:48**	**8:59**	**9:01**	**9:11**	**9:19**
8:35	**8:44**	**8:52**	**8:59**	**9:08**	**9:18**	**9:29**	**9:31**	**9:40**	**9:47**
9:05	**9:14**	**9:22**	**9:29**	**9:38**	**9:48**	**9:59**	**10:01**	**10:10**	**10:17**
9:35	**9:44**	**9:52**	**9:59**	**10:08**	**10:18**	**10:29**	**10:31**	**10:40**	**10:47**
10:05	**10:14**	**10:22**	**10:29**	**10:38**	**10:48**	**10:58**	**11:00**	**11:09**	**11:16**
10:35	**10:44**	**10:52**	**10:59**	**11:08**	**11:18**	**11:28**	**11:30**	**11:39**	**11:46**

Downtown San Diego → Escondido Transit Center

J	I	H	G	F	E	D	C	B	A
Santa Fe Depot Transit Center **DEPART**	City College Transit Center (Broadway)	City Heights Transit Plaza (Univ. Av.)	Boulevard Transit Plaza (El Cajon Bl.)	Kearny Mesa Transit Center	Miramar College Transit Station	Sabre Springs/ Peñasquitos T.S.	Rancho Bernardo Transit Station	Del Lago Transit Station	Escondido Transit Center **ARRIVE**
4:43a	4:50a	5:00a	5:02a	5:13a	5:24a	5:31a	5:39a	5:46a	5:57a
5:03	5:10	5:20	5:22	5:33	5:44	5:51	5:59	6:06	6:17
5:18	5:25	5:35	5:37	5:49	6:00	6:07	6:15	6:22	6:34
5:33	5:40	5:50	5:52	6:04	6:15	6:22	6:30	6:37	6:49
5:46	5:53	6:03	6:05	6:17	6:28	6:35	6:43	6:50	7:02
5:59	6:06	6:16	6:18	6:30	6:41	6:48	6:56	7:03	7:15
6:12	6:19	6:29	6:31	6:44	6:55	7:02	7:10	7:17	7:29
6:26	6:34	6:44	6:46	7:00	7:12	7:19	7:27	7:34	7:46
6:41	6:49	6:59	7:01	7:15	7:27	7:34	7:42	7:49	8:01
6:55	7:03	7:14	7:16	7:32	7:44	7:51	7:59	8:06	8:18
7:10	7:18	7:29	7:31	7:47	7:59	8:06	8:14	8:21	8:33
7:25	7:33	7:44	7:46	8:02	8:14	8:21	8:29	8:36	8:48
7:40	7:48	7:59	8:01	8:17	8:29	8:36	8:44	8:51	9:03
7:55	8:03	8:14	8:16	8:32	8:44	8:51	8:59	9:06	9:18
8:10	8:18	8:29	8:31	8:47	8:59	9:06	9:14	9:21	9:33
8:25	8:33	8:43	8:45	9:00	9:12	9:19	9:27	9:34	9:46
8:40	8:48	8:58	9:00	9:14	9:26	9:33	9:41	9:48	10:00
8:55	9:03	9:13	9:15	9:28	9:39	9:46	9:54	10:01	10:13
9:10	9:18	9:28	9:30	9:43	9:54	10:01	10:09	10:16	10:28
9:23	9:31	9:41	9:43	9:56	10:07	10:14	10:22	10:29	10:41
9:38	9:46	9:56	9:58	10:11	10:22	10:29	10:37	10:44	10:56
9:53	10:01	10:11	10:13	10:26	10:37	10:44	10:52	10:59	11:11
10:08	10:16	10:26	10:28	10:41	10:52	10:59	11:07	11:14	11:26
10:23	10:31	10:41	10:43	10:56	11:07	11:14	11:22	11:29	11:41
10:38	10:46	10:56	10:58	11:11	11:22	11:29	11:37	11:44	11:56
10:53	11:01	11:11	11:13	11:26	11:37	11:44	11:52	11:59	**12:11p**
11:08	11:16	11:26	11:28	11:41	11:52	11:59	**12:07p**	**12:14p**	**12:26**
11:23	11:31	11:41	11:43	11:56	**12:07p**	**12:14p**	**12:22**	**12:29**	**12:41**
11:38	11:46	11:56	11:58	**12:11p**	**12:22**	**12:29**	**12:37**	**12:44**	**12:56**
11:52	**12:01p**	**12:11p**	**12:13p**	**12:26**	**12:37**	**12:44**	**12:52**	**12:59**	**1:11**
12:07p	**12:16**	**12:26**	**12:28**	**12:41**	**12:52**	**12:59**	**1:07**	**1:14**	**1:26**
12:22	**12:31**	**12:41**	**12:43**	**12:56**	**1:07**	**1:14**	**1:22**	**1:29**	**1:41**
12:37	**12:46**	**12:56**	**12:58**	**1:11**	**1:22**	**1:29**	**1:37**	**1:44**	**1:56**
12:52	**1:01**	**1:11**	**1:13**	**1:26**	**1:37**	**1:44**	**1:52**	**1:59**	**2:11**
1:07	**1:16**	**1:26**	**1:28**	**1:41**	**1:52**	**1:59**	**2:07**	**2:14**	**2:26**
1:22	**1:31**	**1:41**	**1:43**	**1:56**	**2:07**	**2:14**	**2:22**	**2:29**	**2:41**
1:37	**1:46**	**1:56**	**1:58**	**2:11**	**2:22**	**2:29**	**2:37**	**2:44**	**2:56**
1:52	**2:01**	**2:11**	**2:13**	**2:26**	**2:37**	**2:44**	**2:52**	**2:59**	**3:11**
2:07	**2:16**	**2:26**	**2:28**	**2:41**	**2:53**	**3:00**	**3:08**	**3:15**	**3:28**
2:24	**2:33**	**2:43**	**2:45**	**2:58**	**3:10**	**3:17**	**3:25**	**3:32**	**3:45**
2:41	**2:50**	**3:00**	**3:02**	**3:15**	**3:27**	**3:34**	**3:42**	**3:49**	**4:02**
2:56	**3:05**	**3:16**	**3:18**	**3:31**	**3:43**	**3:50**	**3:58**	**4:05**	**4:18**
3:10	**3:19**	**3:31**	**3:33**	**3:46**	**3:59**	**4:06**	**4:14**	**4:21**	**4:34**
3:24	**3:34**	**3:47**	**3:49**	**4:02**	**4:15**	**4:22**	**4:30**	**4:37**	**4:50**
3:39	**3:49**	**4:02**	**4:04**	**4:17**	**4:30**	**4:37**	**4:45**	**4:52**	**5:05**
3:54	**4:04**	**4:17**	**4:19**	**4:32**	**4:45**	**4:52**	**5:00**	**5:07**	**5:20**
4:09	**4:19**	**4:32**	**4:34**	**4:47**	**5:00**	**5:07**	**5:15**	**5:22**	**5:35**
4:25	**4:35**	**4:48**	**4:50**	**5:03**	**5:16**	**5:23**	**5:31**	**5:38**	**5:51**
4:40	**4:50**	**5:03**	**5:05**	**5:17**	**5:30**	**5:37**	**5:45**	**5:52**	**6:05**
4:55	**5:05**	**5:18**	**5:20**	**5:32**	**5:45**	**5:52**	**6:00**	**6:07**	**6:20**
5:10	**5:20**	**5:33**	**5:35**	**5:47**	**6:00**	**6:07**	**6:15**	**6:22**	**6:35**
5:26	**5:35**	**5:48**	**5:50**	**6:02**	**6:15**	**6:22**	**6:30**	**6:37**	**6:50**
5:41	**5:50**	**6:02**	**6:04**	**6:16**	**6:28**	**6:35**	**6:43**	**6:50**	**7:02**
5:57	**6:05**	**6:16**	**6:18**	**6:30**	**6:42**	**6:49**	**6:57**	**7:04**	**7:15**
6:12	**6:20**	**6:31**	**6:33**	**6:45**	**6:57**	**7:04**	**7:12**	**7:19**	**7:30**
6:27	**6:35**	**6:46**	**6:48**	**7:00**	**7:12**	**7:19**	**7:27**	**7:34**	**7:45**
6:42	**6:50**	**7:01**	**7:03**	**7:15**	**7:27**	**7:34**	**7:42**	**7:49**	**8:00**
7:08	**7:16**	**7:26**	**7:28**	**7:39**	**7:50**	**7:57**	**8:05**	**8:12**	**8:23**
7:38	**7:46**	**7:56**	**7:58**	**8:09**	**8:20**	**8:27**	**8:35**	**8:42**	**8:53**
8:07	**8:15**	**8:25**	**8:27**	**8:38**	**8:49**	**8:56**	**9:04**	**9:11**	**9:22**
8:37	**8:45**	**8:55**	**8:57**	**9:08**	**9:19**	**9:26**	**9:34**	**9:41**	**9:52**
9:08	**9:15**	**9:25**	**9:27**	**9:38**	**9:49**	**9:56**	**10:04**	**10:11**	**10:21**
9:38	**9:45**	**9:55**	**9:57**	**10:08**	**10:19**	**10:26**	**10:34**	**10:41**	**10:51**
10:08	**10:15**	**10:25**	**10:27**	**10:38**	**10:49**	**10:56**	**11:04**	**11:11**	**11:21**
10:38	**10:45**	**10:55**	**10:57**	**11:08**	**11:19**	**11:26**	**11:34**	**11:41**	**11:51**

235 Saturday and Sunday • *sábado y domingo*

Escondido Transit Center → Downtown San Diego

A	B	C	D	E	F	G	H	I	J
Escondido Transit Center **DEPART**	Del Lago Transit Station	Rancho Bernardo Transit Station	Sabre Springs/ Peñasquitos T.S.	Miramar College Transit Station	Kearny Mesa Transit Center	Boulevard Transit Plaza (El Cajon Bl.)	City Heights Transit Plaza (Univ. Av.)	City College Transit Center (Broadway)	America Plaza Trolley Station **ARRIVE**
—	—	—	—	—	5:14a	5:23a	5:25a	5:34a	5:41a
5:01a	5:10a	5:18a	5:25a	5:34a	5:44	5:53	5:55	6:04	6:11
5:30	5:39	5:47	5:54	6:03	6:13	6:22	6:24	6:34	6:41
6:00	6:09	6:17	6:24	6:33	6:43	6:52	6:54	7:04	7:11
6:30	6:39	6:47	6:54	7:03	7:14	7:24	7:26	7:36	7:44
7:00	7:09	7:17	7:24	7:33	7:44	7:54	7:56	8:06	8:14
7:30	7:39	7:47	7:54	8:03	8:14	8:24	8:26	8:36	8:44
8:00	8:09	8:17	8:24	8:33	8:44	8:54	8:56	9:06	9:14
8:30	8:39	8:47	8:54	9:03	9:14	9:24	9:26	9:36	9:44
9:04	9:13	9:21	9:28	9:37	9:48	9:58	10:00	10:11	10:19
9:34	9:43	9:51	9:58	10:07	10:18	10:28	10:30	10:41	10:49
10:04	10:13	10:21	10:28	10:37	10:48	10:58	11:00	11:11	11:19
10:33	10:42	10:50	10:57	11:06	11:17	11:28	11:30	11:41	11:49
11:03	11:12	11:20	11:27	11:36	11:47	11:58	**12:00p**	**12:11p**	**12:19p**
11:33	11:42	11:50	11:57	**12:06p**	**12:17p**	**12:28p**	**12:30**	**12:41**	**12:49**
12:03p	**12:12p**	**12:20p**	**12:27p**	**12:36**	**12:47**	**12:58**	**1:00**	**1:11**	**1:19**
12:33	**12:42**	**12:50**	**12:57**	**1:06**	**1:17**	**1:28**	**1:30**	**1:41**	**1:49**
1:03	**1:12**	**1:20**	**1:27**	**1:36**	**1:47**	**1:58**	**2:00**	**2:11**	**2:19**
1:33	**1:42**	**1:50**	**1:57**	**2:06**	**2:17**	**2:28**	**2:30**	**2:41**	**2:49**
2:03	**2:12**	**2:20**	**2:27**	**2:36**	**2:47**	**2:58**	**3:00**	**3:11**	**3:19**
2:33	**2:42**	**2:50**	**2:57**	**3:06**	**3:17**	**3:28**	**3:30**	**3:41**	**3:49**
3:03	**3:12**	**3:20**	**3:27**	**3:36**	**3:47**	**3:58**	**4:00**	**4:11**	**4:19**
3:33	**3:42**	**3:50**	**3:57**	**4:06**	**4:17**	**4:28**	**4:30**	**4:41**	**4:49**
4:03	**4:12**	**4:20**	**4:27**	**4:36**	**4:47**	**4:58**	**5:00**	**5:11**	**5:19**
4:33	**4:42**	**4:50**	**4:57**	**5:06**	**5:17**	**5:28**	**5:30**	**5:41**	**5:49**
5:03	**5:12**	**5:20**	**5:27**	**5:36**	**5:47**	**5:58**	**6:00**	**6:11**	**6:19**
5:31	**5:40**	**5:48**	**5:55**	**6:04**	**6:15**	**6:25**	**6:27**	**6:37**	**6:45**
6:01	**6:10**	**6:18**	**6:25**	**6:34**	**6:45**	**6:55**	**6:57**	**7:07**	**7:15**
6:31	**6:40**	**6:48**	**6:55**	**7:04**	**7:15**	**7:25**	**7:27**	**7:37**	**7:45**
7:01	**7:10**	**7:18**	**7:25**	**7:34**	**7:44**	**7:54**	**7:56**	**8:06**	**8:14**
7:34	**7:43**	**7:51**	**7:58**	**8:07**	**8:17**	**8:27**	**8:29**	**8:39**	**8:47**
8:05	**8:14**	**8:22**	**8:29**	**8:38**	**8:48**	**8:58**	**9:00**	**9:10**	**9:18**
8:35	**8:44**	**8:52**	**8:59**	**9:08**	**9:18**	**9:28**	**9:30**	**9:40**	**9:47**
9:05	**9:14**	**9:22**	**9:29**	**9:38**	**9:48**	**9:57**	**9:59**	**10:09**	**10:16**
9:35	**9:44**	**9:52**	**9:59**	**10:08**	**10:18**	**10:27**	**10:29**	**10:39**	**10:46**
10:05	**10:14**	**10:22**	**10:29**	**10:38**	**10:48**	**10:57**	**10:59**	**11:09**	**11:16**

Downtown San Diego → Escondido Transit Center

J	I	H	G	F	E	D	C	B	A
Santa Fe Depot Transit Center **DEPART**	City College Transit Center (Broadway)	City Heights Transit Plaza (Univ. Av.)	Boulevard Transit Plaza (El Cajon Bl.)	Kearny Mesa Transit Center	Miramar College Transit Station	Sabre Springs/ Peñasquitos T.S.	Rancho Bernardo Transit Station	Del Lago Transit Station	Escondido Transit Center **ARRIVE**
4:43a	4:50a	5:00a	5:02a	5:13a	5:24a	5:31a	5:39a	5:46a	5:56a
5:10	5:17	5:27	5:29	5:40	5:51	5:58	6:06	6:13	6:23
5:40	5:47	5:57	5:59	6:10	6:21	6:28	6:36	6:43	6:53
6:10	6:17	6:27	6:29	6:40	6:51	6:58	7:06	7:13	7:23
6:40	6:47	6:57	6:59	7:10	7:21	7:28	7:36	7:43	7:53
7:10	7:18	7:28	7:30	7:41	7:52	7:59	8:07	8:14	8:24
7:40	7:48	7:58	8:00	8:11	8:22	8:29	8:37	8:44	8:54
8:09	8:17	8:27	8:29	8:40	8:51	8:58	9:06	9:13	9:23
8:39	8:47	8:57	8:59	9:11	9:22	9:29	9:37	9:44	9:55
9:10	9:18	9:28	9:30	9:42	9:53	10:00	10:08	10:15	10:26
9:40	9:48	9:58	10:00	10:12	10:23	10:30	10:38	10:45	10:56
10:11	10:19	10:29	10:31	10:43	10:54	11:01	11:09	11:16	11:27
10:41	10:49	10:59	11:01	11:13	11:24	11:31	11:39	11:46	11:57
11:11	11:19	11:29	11:31	11:43	11:54	**12:01p**	**12:09p**	**12:16p**	**12:27p**
11:41	11:49	11:59	**12:01p**	**12:13p**	**12:24p**	12:31	12:39	12:46	12:57
12:11p	**12:19p**	**12:29p**	12:31	12:43	12:54	1:01	1:09	1:16	1:27
12:41	**12:49**	**12:59**	1:01	1:13	1:24	1:31	1:39	1:46	1:57
1:11	**1:19**	**1:29**	1:31	1:43	1:54	2:01	2:09	2:16	2:27
1:41	**1:49**	**1:59**	2:01	2:13	2:24	2:31	2:39	2:46	2:57
2:11	**2:19**	**2:29**	2:31	2:43	2:54	3:01	3:09	3:16	3:28
2:41	**2:49**	**2:59**	3:01	3:13	3:24	3:31	3:39	3:46	3:58
3:09	**3:18**	**3:29**	3:31	3:43	3:54	4:01	4:09	4:16	4:28
3:39	**3:48**	**3:59**	4:01	4:13	4:24	4:31	4:39	4:46	4:58
4:09	**4:18**	**4:29**	4:31	4:43	4:54	5:01	5:09	5:16	5:28
4:40	**4:49**	**5:00**	5:02	5:13	5:24	5:31	5:39	5:46	5:58
5:10	**5:19**	**5:30**	5:32	5:43	5:54	6:01	6:09	6:16	6:28
5:39	**5:48**	**5:59**	6:01	6:12	6:23	6:30	6:38	6:45	6:57
6:10	**6:18**	**6:29**	6:31	6:42	6:53	7:00	7:08	7:15	7:27
6:41	**6:49**	**6:59**	7:01	7:12	7:23	7:30	7:38	7:45	7:56
7:09	**7:17**	**7:27**	7:29	7:40	7:51	7:58	8:06	8:13	8:24
7:39	**7:47**	**7:57**	7:59	8:10	8:21	8:28	8:36	8:43	8:54
8:07	**8:15**	**8:25**	8:27	8:38	8:49	8:56	9:04	9:11	9:22
8:38	**8:45**	**8:55**	8:57	9:08	9:19	9:26	9:34	9:41	9:52
9:08	**9:15**	**9:25**	9:27	9:38	9:49	9:56	10:04	10:11	10:21
9:38	**9:45**	**9:55**	9:57	10:08	10:19	10:26	10:34	10:41	10:51
10:08	**10:15**	**10:25**	10:27	10:38	10:49	10:56	11:04	11:11	11:21

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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MTS

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Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**619-557-4555**
Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

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Autobuses en todas las rutas de MTS son accesibles mediante un ascensor o rampa.

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Formato alternativo disponible al preguntar. Llamar: (619) 557-4555.

Effective June 30, 2023

Rapid

237

Bus Route

Mira Mesa ↔ UC San Diego

via Mira Mesa Boulevard

Destinations

- Miramar College Transit Station
- Mira Mesa High School
- Mira Mesa Mall
- Sorrento Mesa
- Westfield UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

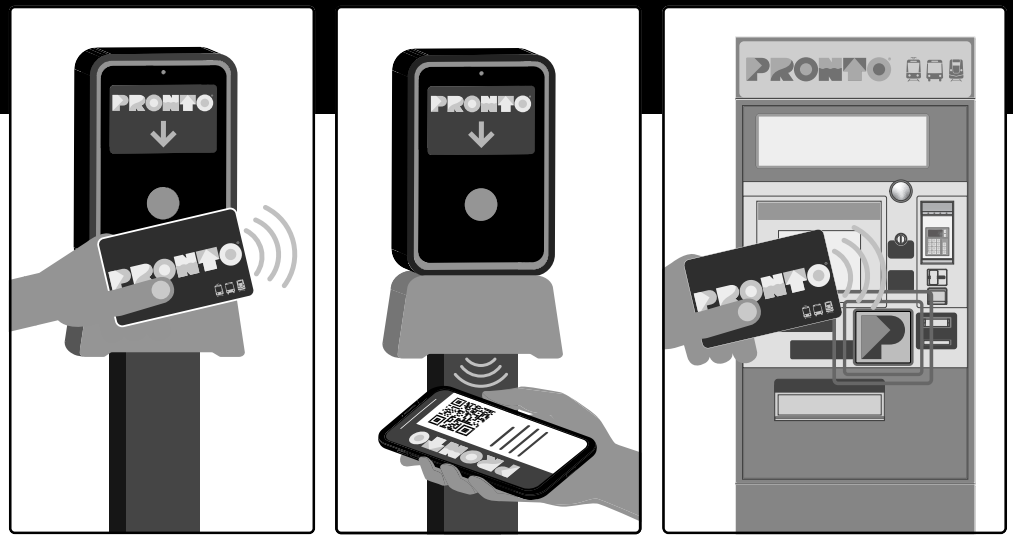
MTS

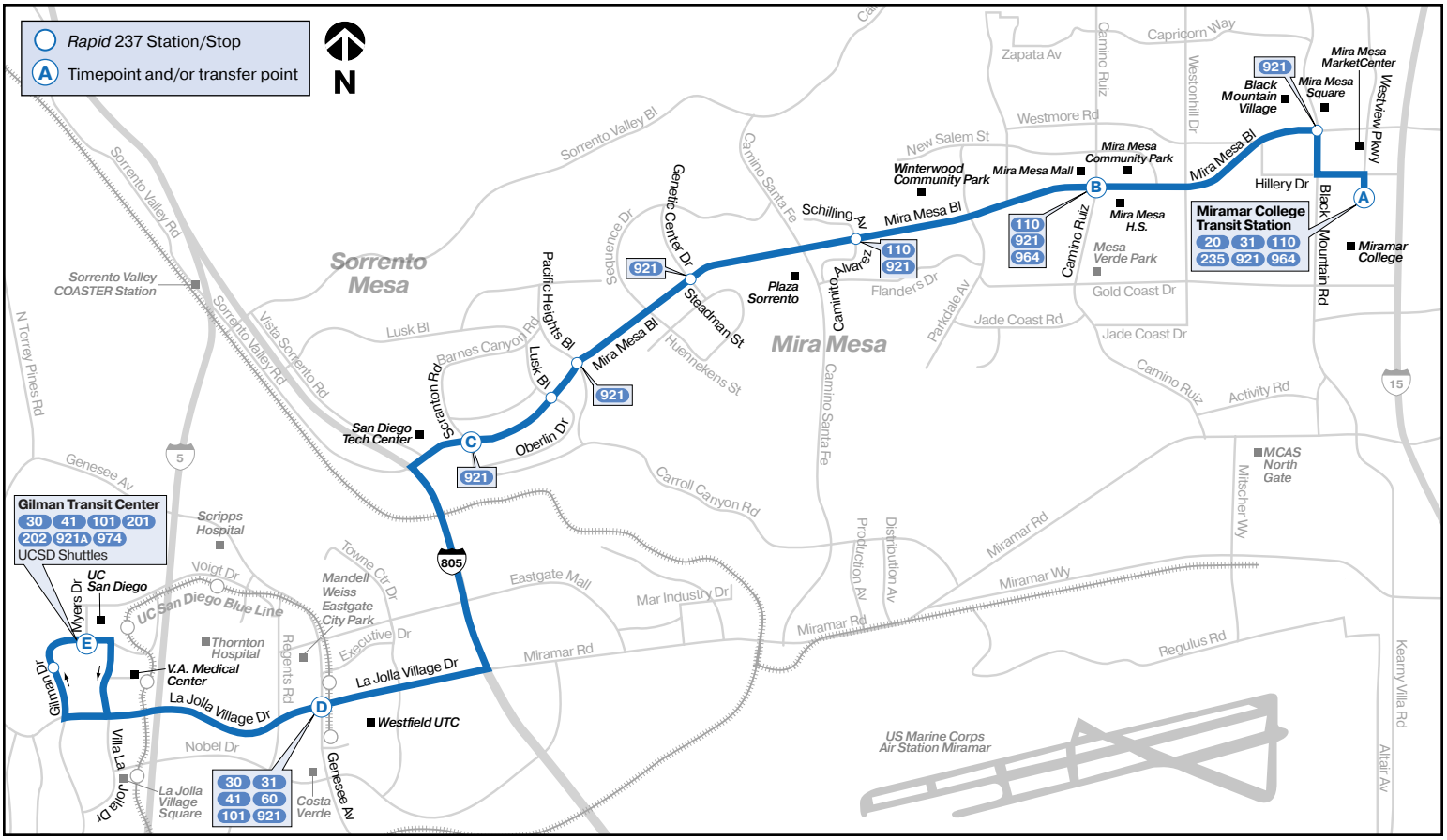
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TAP or SCAN - Required Before Boarding

TOCA o ESCANEA - Se requiere antes de abordar





237 Monday through Friday • *lunes a viernes*

Mira Mesa → UC San Diego

A Miramar College Transit Station **DEPART**	B Mira Mesa Bl. & Camino Ruiz	C Mira Mesa Bl. & Scranton Rd.	D La Jolla Village Dr. & Genesee Av.	E Gilman Transit Center (UCSD) **ARRIVE**
5:52a	5:59a	6:09a	6:17a	6:25a
6:22	6:29	6:39	6:47	6:55
6:36	6:43	6:53	7:01	7:09
6:51	6:59	7:10	7:18	7:27
7:04	7:13	7:25	7:34	7:43
7:20	7:29	7:41	7:50	7:59
7:35	7:44	7:56	8:05	8:14
7:50	7:59	8:12	8:21	8:31
8:05	8:14	8:27	8:36	8:46
8:20	8:29	8:42	8:51	9:01
8:35	8:44	8:57	9:06	9:16
8:50	8:59	9:12	9:21	9:31
9:06	9:15	9:28	9:37	9:47
9:21	9:30	9:43	9:52	10:02
9:51	9:59	10:11	10:20	10:29
2:48p	**2:55p**	**3:06p**	**3:17p**	**3:26p**
3:18	**3:25**	**3:36**	**3:47**	**3:56**
3:48	**3:56**	**4:08**	**4:19**	**4:28**
4:19	**4:27**	**4:39**	**4:51**	**5:01**
4:34	**4:42**	**4:54**	**5:06**	**5:16**
4:50	**4:58**	**5:10**	**5:22**	**5:32**
5:05	**5:13**	**5:25**	**5:37**	**5:47**
5:20	**5:28**	**5:40**	**5:52**	**6:02**
5:35	**5:43**	**5:55**	**6:07**	**6:17**
5:50	**5:57**	**6:09**	**6:19**	**6:29**
6:21	**6:28**	**6:39**	**6:48**	**6:57**
6:47	**6:54**	**7:04**	**7:12**	**7:21**
7:17	**7:24**	**7:34**	**7:42**	**7:51**

UC San Diego → Mira Mesa

E Gilman Transit Center (UCSD) **DEPART**	D La Jolla Village Dr. & Genesee Av.	C Mira Mesa Bl. & Scranton Rd.	B Mira Mesa Bl. & Camino Ruiz	A Miramar College Transit Station **ARRIVE**
6:03a	6:09a	6:13a	6:24a	6:31a
6:36	6:43	6:47	6:58	7:06
7:05	7:12	7:17	7:29	7:38
7:24	7:31	7:36	7:48	7:57
7:39	7:46	7:51	8:03	8:12
7:54	8:01	8:06	8:18	8:27
8:13	8:20	8:25	8:37	8:46
8:28	8:35	8:40	8:52	9:01
8:43	8:50	8:55	9:07	9:16
9:09	9:16	9:21	9:33	9:42
2:01p	**2:10p**	**2:15p**	**2:27p**	**2:37p**
2:31	**2:40**	**2:45**	**2:57**	**3:07**
3:01	**3:10**	**3:15**	**3:27**	**3:37**
3:29	**3:38**	**3:43**	**3:55**	**4:05**
3:44	**3:53**	**3:58**	**4:10**	**4:20**
3:57	**4:06**	**4:11**	**4:25**	**4:35**
4:12	**4:21**	**4:26**	**4:42**	**4:53**
4:27	**4:36**	**4:41**	**4:57**	**5:08**
4:40	**4:49**	**4:54**	**5:11**	**5:23**
4:54	**5:03**	**5:08**	**5:25**	**5:38**
5:12	**5:21**	**5:26**	**5:43**	**5:56**
5:27	**5:36**	**5:41**	**5:58**	**6:11**
5:44	**5:52**	**5:57**	**6:14**	**6:26**
5:57	**6:05**	**6:10**	**6:27**	**6:39**
6:16	**6:24**	**6:29**	**6:44**	**6:54**
6:33	**6:41**	**6:46**	**6:59**	**7:08**
6:55	**7:03**	**7:08**	**7:21**	**7:30**
7:31	**7:39**	**7:43**	**7:55**	**8:03**
8:01	**8:09**	**8:13**	**8:25**	**8:33**

Route 237 does not operate on weekends or on the following holidays and observed holidays / *La ruta 237 no ofrece servicio durante el fin de semana o durante los siguientes días festivos y feriados observados*

New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Lost and Found *Objetos extraviados*	**619-233-3004**
Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**619-234-5005** **888-722-4889**

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Effective August 31, 2025

31

UTC Transit Center ↔ Mira Mesa
via Miramar Road

921

UTC Transit Center ↔ Mira Mesa
via Mira Mesa Boulevard

Bus Routes

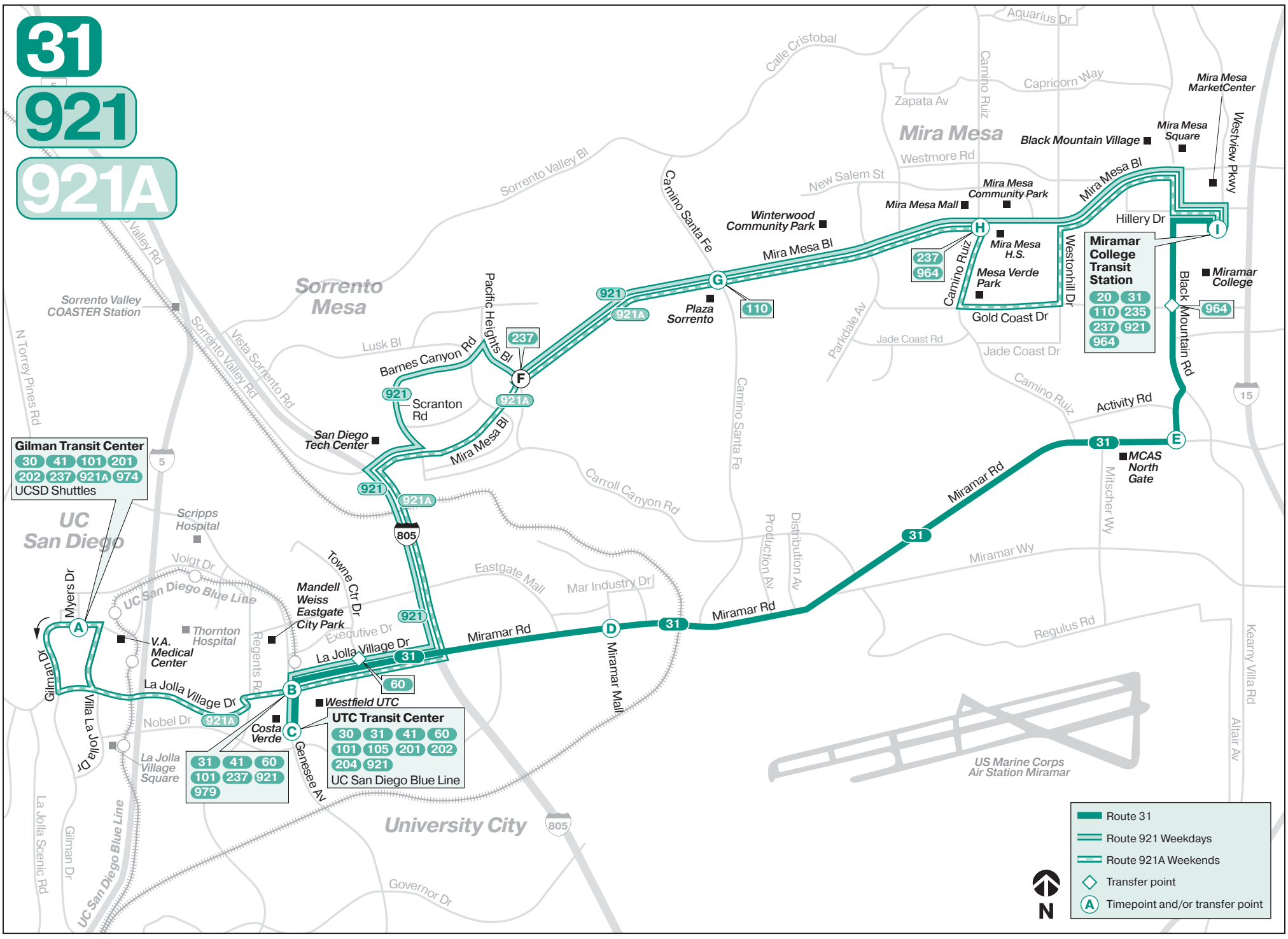
Destinations
- MCAS Miramar - North Gate (31)
- Miramar College Transit Station
- Mira Mesa Marketcenter
- Westfield UTC
- Mira Mesa High School / Mall / Marketcenter
- Sorrento Mesa (921)
- VA Medical Center (921A)
- UC San Diego (921A)

Trolley Connections
- UTC

Subject to change without notice
Sujeto a cambios sin previo aviso

MTS

31
921
921A



31 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C UTC Transit Center **DEPART**	D Miramar Rd. & Miramar Mall	E Black Mountain Rd. & Miramar Rd.	I Miramar College Transit Station **ARRIVE**
6:02a	6:08a	6:18a	6:25a
6:32	6:39	6:50	6:58
7:02	7:09	7:21	7:30
7:32	7:39	7:51	8:00
8:02	8:09	8:20	8:28
8:32	8:39	8:50	8:58
2:30p	**2:38p**	**2:51p**	**2:59p**
3:03	**3:11**	**3:24**	**3:32**
3:33	**3:41**	**3:55**	**4:04**
4:01	**4:09**	**4:23**	**4:32**
4:31	**4:39**	**4:53**	**5:02**
5:03	**5:11**	**5:25**	**5:34**
5:33	**5:41**	**5:55**	**6:04**
6:03	**6:10**	**6:23**	**6:31**
6:33	**6:40**	**6:51**	**6:58**

Miramar College Transit Station → UTC Transit Center

I Miramar College Transit Station **DEPART**	E Black Mountain Rd. & Miramar Rd.	D Miramar Rd. & Miramar Mall	C UTC Transit Center **ARRIVE**
5:39a	5:45a	5:58a	6:05a
6:09	6:15	6:29	6:37
6:39	6:46	7:00	7:09
7:08	7:15	7:29	7:38
7:38	7:46	8:00	8:10
8:08	8:16	8:30	8:40
8:38	8:46	9:00	9:10
9:09	9:17	9:31	9:41
2:41p	**2:48p**	**3:00p**	**3:10p**
3:11	**3:18**	**3:30**	**3:40**
3:41	**3:48**	**4:00**	**4:10**
4:11	**4:18**	**4:31**	**4:42**
4:41	**4:48**	**5:01**	**5:12**
5:11	**5:18**	**5:30**	**5:40**
5:49	**5:56**	**6:07**	**6:16**

Route 31 does not operate on weekends or on the following holidays and observed holidays / *La ruta 31 no ofrece servicio durante el fin de semana ó durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

921 Monday through Friday • *lunes a viernes*

UTC Transit Center → Miramar College Transit Station

C	F	G	H	I
UTC Transit Center **DEPART**	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Camino Ruiz	Miramar College Transit Station **ARRIVE**
6:17a	6:33a	6:38a	6:44a	6:53a
6:41	6:57	7:02	7:08	7:17
7:11	7:27	7:32	7:38	7:47
7:35	7:53	7:59	8:06	8:15
8:05	8:23	8:29	8:36	8:45
8:35	8:53	8:59	9:06	9:15
9:08	9:24	9:29	9:36	9:45
9:38	9:54	9:59	10:06	10:15
10:08	10:24	10:29	10:36	10:45
10:38	10:54	10:59	11:06	11:15
11:08	11:24	11:29	11:36	11:45
11:38	11:54	11:59	**12:06p**	**12:15p**
12:08p	**12:24p**	**12:29p**	**12:36**	**12:45**
12:38	**12:54**	**12:59**	**1:06**	**1:15**
1:06	**1:23**	**1:28**	**1:35**	**1:45**
1:36	**1:53**	**1:58**	**2:05**	**2:15**
2:11	**2:28**	**2:33**	**2:40**	**2:50**
2:41	**2:58**	**3:03**	**3:10**	**3:20**
3:11	**3:28**	**3:33**	**3:40**	**3:50**
3:39	**3:56**	**4:02**	**4:09**	**4:20**
4:06	**4:24**	**4:30**	**4:38**	**4:50**
4:36	**4:54**	**5:00**	**5:08**	**5:20**
5:06	**5:24**	**5:30**	**5:38**	**5:50**
5:31	**5:49**	**5:55**	**6:03**	**6:15**
6:04	**6:21**	**6:26**	**6:34**	**6:45**
6:36	**6:53**	**6:58**	**7:05**	**7:15**
7:07	**7:24**	**7:29**	**7:36**	**7:46**

Miramar College Transit Station → UTC Transit Center

I	H	G	F	C
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Pacific Heights Bl. & Mira Mesa Bl.	UTC Transit Center **ARRIVE**
5:35a	5:44a	5:50a	5:55a	6:12a
6:09	6:18	6:24	6:29	6:47
6:39	6:48	6:54	6:59	7:16
7:09	7:19	7:26	7:31	7:50
7:39	7:49	7:56	8:01	8:20
8:09	8:19	8:26	8:31	8:50
8:39	8:49	8:56	9:01	9:20
9:09	9:19	9:26	9:31	9:50
9:44	9:53	9:59	10:04	10:22
10:14	10:23	10:29	10:34	10:52
10:44	10:53	10:59	11:04	11:22
11:14	11:23	11:29	11:34	11:52
11:44	11:53	11:59	**12:04p**	**12:22p**
12:14p	**12:23p**	**12:29p**	**12:34**	**12:52**
12:44	**12:53**	**12:59**	**1:04**	**1:22**
1:14	**1:23**	**1:29**	**1:34**	**1:52**
1:44	**1:53**	**1:59**	**2:04**	**2:22**
2:14	**2:23**	**2:29**	**2:34**	**2:54**
2:39	**2:48**	**2:54**	**2:59**	**3:21**
3:06	**3:15**	**3:21**	**3:26**	**3:48**
3:36	**3:45**	**3:51**	**3:56**	**4:18**
4:07	**4:16**	**4:22**	**4:27**	**4:49**
4:37	**4:46**	**4:52**	**4:57**	**5:19**
5:07	**5:16**	**5:22**	**5:27**	**5:49**
5:37	**5:46**	**5:52**	**5:57**	**6:19**
6:07	**6:16**	**6:22**	**6:27**	**6:46**
6:35	**6:44**	**6:50**	**6:55**	**7:14**

921A Saturday and Sunday • *sábado y domingo*

Gilman Transit Center → Miramar College Transit Station

A	B	F	G	H	I
Gilman Transit Center (UCSD) **DEPART**	La Jolla Village Dr. & Genesee Av.	Mira Mesa Bl. & Pacific Heights Bl.	Mira Mesa Bl. & Camino Santa Fe	Camino Ruiz & Mira Mesa Bl.	Miramar College Transit Station **ARRIVE**
A 7:19a	7:29a	7:37a	7:40a	7:45a	7:57a
A 8:19	8:29	8:37	8:40	8:45	8:57
A 9:19	9:30	9:39	9:42	9:48	10:01
A 10:19	10:30	10:39	10:42	10:48	11:01
A 11:19	11:30	11:39	11:42	11:48	**12:01p**
A **12:19p**	**12:30p**	**12:39p**	**12:42p**	**12:48p**	**1:01**
A **1:19**	**1:30**	**1:39**	**1:42**	**1:48**	**2:01**
A **2:19**	**2:30**	**2:39**	**2:42**	**2:48**	**3:01**
A **3:19**	**3:30**	**3:39**	**3:42**	**3:48**	**4:01**
A **4:19**	**4:30**	**4:39**	**4:42**	**4:48**	**5:01**
A **5:18**	**5:29**	**5:38**	**5:41**	**5:47**	**6:00**
A **6:18**	**6:29**	**6:38**	**6:41**	**6:47**	**7:00**
A **7:22**	**7:32**	**7:40**	**7:43**	**7:48**	**8:00**

Miramar College Transit Station → Gilman Transit Center

I	H	G	F	B	A
Miramar College Transit Station **DEPART**	Mira Mesa Bl. & Camino Ruiz	Mira Mesa Bl. & Camino Santa Fe	Mira Mesa Bl. & Pacific Heights Bl.	La Jolla Village Dr. & Genesee Av.	Gilman Transit Center (UCSD) **ARRIVE**
A 7:27a	7:39a	7:44a	7:47a	7:55a	8:04a
A 8:27	8:39	8:44	8:47	8:55	9:04
A 9:28	9:42	9:47	9:50	9:59	10:09
A 10:28	10:42	10:47	10:50	10:59	11:09
A 11:28	11:42	11:47	11:50	11:59	**12:09p**
A **12:28p**	**12:42p**	**12:47p**	**12:50p**	**12:59p**	**1:09**
A **1:28**	**1:42**	**1:47**	**1:50**	**1:59**	**2:09**
A **2:28**	**2:42**	**2:47**	**2:50**	**2:59**	**3:09**
A **3:28**	**3:42**	**3:47**	**3:50**	**3:59**	**4:09**
A **4:27**	**4:41**	**4:46**	**4:49**	**4:58**	**5:08**
A **5:27**	**5:41**	**5:46**	**5:49**	**5:58**	**6:08**
A **6:27**	**6:41**	**6:46**	**6:49**	**6:58**	**7:08**

A = Saturday/Sunday trips have an alternate routing in Mira Mesa & Sorrento Mesa. See map. / *Viajes de sábado/domingo tienen ruta alternativa en Mira Mesa y Sorrento Mesa. Vea el mapa.*

A Saturday or Sunday schedule will be operated on the following holidays and observed holidays / *Se operará con horario de sábado o domingo durante los siguientes días festivos y feriados observados*
New Year's Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas

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Transit Store 12th & Imperial Transit Center M–F / *L-V* 8am–5pm	**619-234-1060**
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Effective January 25, 2026

964

Bus Route

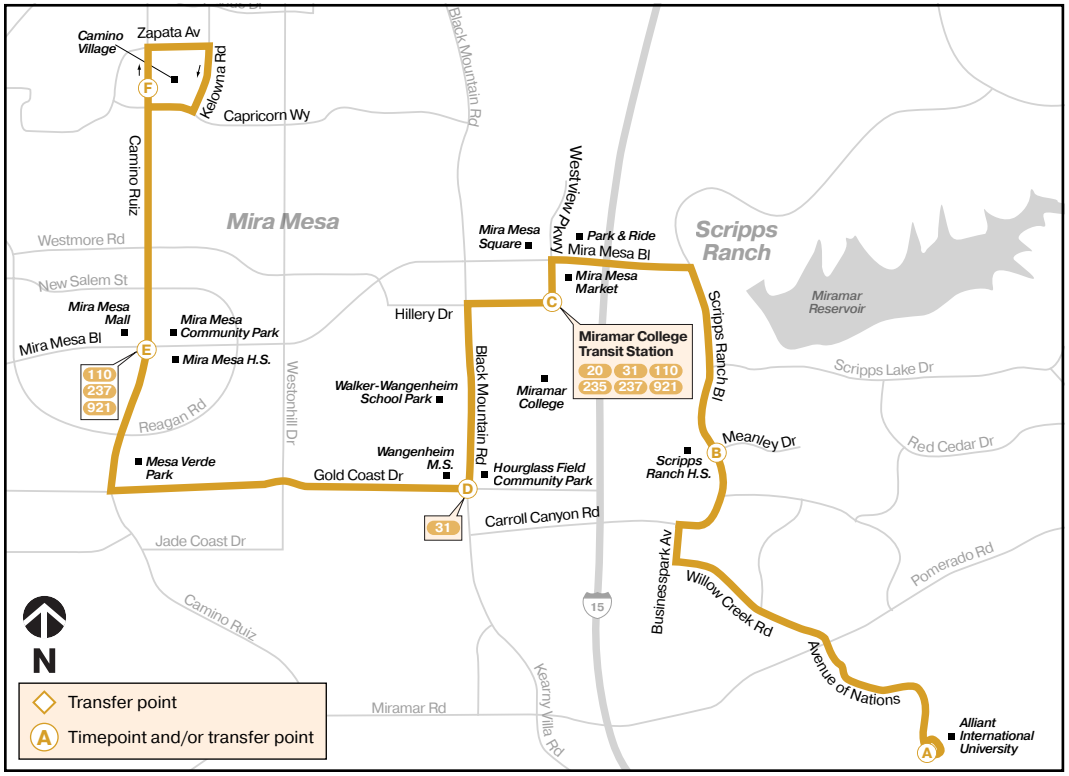
Camino Ruiz & Capricorn Way ↔ Alliant International University

via Miramar College Transit Station

Destinations

- Alliant International University
- Camino Village
- Hourglass Field Community Park
- Miramar College
- Mira Mesa High School
- Mira Mesa Mall
- Mira Mesa Market
- Miramar College Transit Station

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964 Monday through Friday • *lunes a viernes*

Alliant International University → Camino Ruiz & Capricorn Way

A	B	C	D	E	F
Alliant International University **DEPART**	Scripps Ranch Bl. & Meanley Dr.	Miramar College Transit Station	Black Mountain Rd. & Gold Coast Dr.	Camino Ruiz & Mira Mesa Bl.	Camino Ruiz & Capricorn Way **ARRIVE**
6:04a	6:09a	6:18a	6:22a	6:30a	6:33a
6:34	6:39	6:48	6:52	7:00	7:03
7:03	7:09	7:18	7:23	7:31	7:34
7:33	7:39	7:48	7:53	8:01	8:04
8:03	8:09	8:18	8:23	8:31	8:34
8:33	8:39	8:48	8:53	9:01	9:04
9:33	9:39	9:48	9:53	10:01	10:04
10:30	10:36	10:45	10:50	10:58	11:01
11:30	11:36	11:45	11:50	11:59	**12:03p**
12:30p	**12:36p**	**12:45p**	**12:50p**	**12:59p**	**1:03**
1:42	**1:48**	**1:59**	**2:04**	**2:13**	**2:17**
2:42	**2:48**	**2:59**	**3:04**	**3:13**	**3:17**
3:18	**3:24**	**3:35**	**3:40**	**3:49**	**3:53**
3:48	**3:54**	**4:05**	**4:10**	**4:19**	**4:23**
4:18	**4:24**	**4:35**	**4:40**	**4:49**	**4:53**
4:48	**4:54**	**5:05**	**5:10**	**5:19**	**5:23**
5:18	**5:24**	**5:35**	**5:40**	**5:49**	**5:53**
5:48	**5:54**	**6:05**	**6:10**	**6:19**	**6:23**
6:21	**6:27**	**6:38**	**6:43**	**6:52**	**6:56**
6:53	**6:59**	**7:08**	**7:13**	**7:22**	**7:26**
—	—	**7:38**	**7:43**	**7:52**	**7:56**
—	—	**8:13**	**8:17**	**8:25**	**8:28**

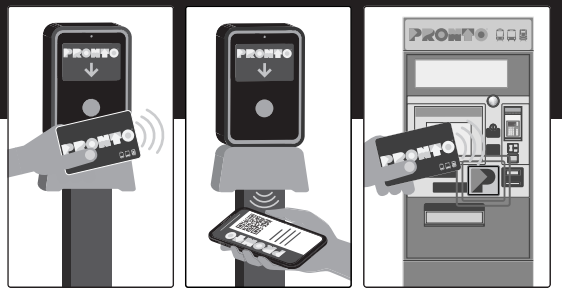
Camino Ruiz & Capricorn Way → Alliant International University

F	E	D	C	B	A
Camino Ruiz & Capricorn Way **DEPART**	Camino Ruiz & Mira Mesa Bl.	Black Mountain Rd. & Gold Coast Dr.	Miramar College Transit Station	Scripps Ranch Bl. & Meanley Dr.	Alliant International University **ARRIVE**
5:35a	5:42a	5:49a	5:55a	6:00a	6:07a
6:19	6:26	6:33	6:39	6:44	6:51
6:47	6:55	7:03	7:09	7:15	7:23
7:17	7:25	7:33	7:39	7:45	7:53
7:47	7:55	8:03	8:09	8:15	8:23
8:17	8:25	8:33	8:39	8:45	8:53
8:47	8:55	9:02	9:08	9:14	9:21
9:20	9:28	9:35	9:41	9:47	9:54
10:20	10:28	10:35	10:41	10:47	10:54
11:20	11:28	11:35	11:41	11:47	11:54
12:20p	**12:28p**	**12:36p**	**12:42p**	**12:48p**	**12:56p**
1:20	**1:28**	**1:36**	**1:42**	**1:48**	**1:56**
2:32	**2:40**	**2:48**	**2:54**	**3:00**	**3:08**
3:32	**3:40**	**3:48**	**3:54**	**4:00**	**4:08**
4:02	**4:10**	**4:18**	**4:24**	**4:30**	**4:38**
4:32	**4:40**	**4:48**	**4:54**	**5:00**	**5:08**
5:03	**5:11**	**5:19**	**5:25**	**5:31**	**5:39**
5:33	**5:41**	**5:49**	**5:55**	**6:01**	**6:09**
6:03	**6:11**	**6:19**	**6:25**	**6:31**	**6:39**
6:33	**6:40**	**6:47**	**6:53**	—	—
7:03	**7:10**	**7:17**	**7:23**	—	—
7:38	**7:45**	**7:52**	**7:58**	—	—

Route 964 does not operate on weekends or on the observation of the following holidays / *La Ruta 964 no ofrece servicio durante el fín de semana ó durante los siguientes días festivos*
Presidents' Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, & Christmas

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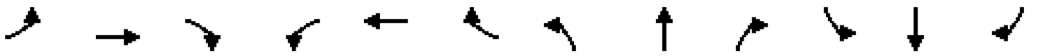
TAP or SCAN - Required Before Boarding

TOCA o ESCANEA - Se requiere antes de abordar

APPENDIX C

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS

– EXISTING



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1423	117	146	1907	109	160	199	46	420	481	403
Future Volume (veh/h)	225	1423	117	146	1907	109	160	199	46	420	481	403
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	242	1530	126	152	1986	114	195	243	56	452	517	433
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.82	0.82	0.82	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2306	808	196	2193	888	237	815	351	488	1072	464
Arrive On Green	0.08	0.45	0.45	0.06	0.43	0.43	0.07	0.23	0.23	0.14	0.30	0.30
Sat Flow, veh/h	3456	5106	1548	3456	5106	1547	3456	3554	1531	3456	3554	1539
Grp Volume(v), veh/h	242	1530	126	152	1986	114	195	243	56	452	517	433
Grp Sat Flow(s),veh/h/ln	1728	1702	1548	1728	1702	1547	1728	1777	1531	1728	1777	1539
Q Serve(g_s), s	11.1	37.5	6.8	6.9	58.1	5.5	8.9	9.1	4.7	20.7	19.0	43.7
Cycle Q Clear(g_c), s	11.1	37.5	6.8	6.9	58.1	5.5	8.9	9.1	4.7	20.7	19.0	43.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	2306	808	196	2193	888	237	815	351	488	1072	464
V/C Ratio(X)	0.89	0.66	0.16	0.78	0.91	0.13	0.82	0.30	0.16	0.93	0.48	0.93
Avail Cap(c_a), veh/h	272	2306	808	270	2193	888	263	911	392	488	1151	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.0	34.4	20.0	74.5	42.6	15.9	73.5	51.0	49.3	67.9	45.6	54.3
Incr Delay (d2), s/veh	28.1	1.5	0.4	9.2	6.8	0.3	16.8	0.2	0.2	23.8	0.3	23.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	15.6	2.6	3.3	25.2	2.0	4.5	4.1	1.8	10.7	8.4	19.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	101.1	35.9	20.5	83.7	49.4	16.2	90.3	51.2	49.5	91.7	46.0	78.1
LnGrp LOS	F	D	C	F	D	B	F	D	D	F	D	E
Approach Vol, veh/h		1898			2252			494			1402	
Approach Delay, s/veh		43.2			50.0			66.5			70.6	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	77.6	15.4	53.6	17.0	74.0	27.0	42.0
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	12.5	64.5	12.2	* 52	12.6	* 65	22.6	41.0
Max Q Clear Time (g_c+I1), s	8.9	39.5	10.9	45.7	13.1	60.1	22.7	11.1
Green Ext Time (p_c), s	0.1	12.7	0.1	2.6	0.0	4.1	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	54.0
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

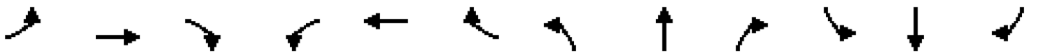
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	1702	59	442	1946	251	84	83	273	654	208	175
Future Volume (veh/h)	76	1702	59	442	1946	251	84	83	273	654	208	175
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.94	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	84	1891	66	491	2162	279	112	111	364	818	260	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.75	0.75	0.75	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	125	2735	95	542	3090	1147	156	207	330	879	1142	552
Arrive On Green	0.04	0.36	0.36	0.16	0.48	0.48	0.04	0.11	0.11	0.25	0.32	0.32
Sat Flow, veh/h	3456	7609	265	3456	6434	1549	3563	1870	2987	3456	3554	1541
Grp Volume(v), veh/h	84	1506	451	491	2162	279	112	111	364	818	260	219
Grp Sat Flow(s),veh/h/ln	1728	1515	1814	1728	1609	1549	1781	1870	1494	1728	1777	1541
Q Serve(g_s), s	3.8	33.9	33.9	22.3	42.1	9.3	5.0	9.0	17.7	37.0	8.6	17.0
Cycle Q Clear(g_c), s	3.8	33.9	33.9	22.3	42.1	9.3	5.0	9.0	17.7	37.0	8.6	17.0
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	2178	652	542	3090	1147	156	207	330	879	1142	552
V/C Ratio(X)	0.67	0.69	0.69	0.91	0.70	0.24	0.72	0.54	1.10	0.93	0.23	0.40
Avail Cap(c_a), veh/h	222	2178	652	618	3090	1147	220	207	330	963	1164	562
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.2	43.7	43.7	66.3	32.5	6.9	75.5	67.3	71.2	58.3	39.8	38.5
Incr Delay (d2), s/veh	6.2	1.8	5.9	15.8	1.3	0.5	6.0	2.5	77.9	14.4	0.1	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	12.9	16.2	11.0	16.4	3.0	2.4	4.4	10.3	17.7	3.8	6.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.4	45.5	49.6	82.0	33.9	7.4	81.6	69.8	149.1	72.7	39.9	39.0
LnGrp LOS	F	D	D	F	C	A	F	E	F	E	D	D
Approach Vol, veh/h		2041			2932			587			1297	
Approach Delay, s/veh		47.9			39.4			121.2			60.4	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.5	62.4	11.4	56.7	10.2	81.7	45.1	23.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	28.6	50.1	9.9	52.4	10.3	68.4	44.6	17.7
Max Q Clear Time (g_c+I1), s	24.3	35.9	7.0	19.0	5.8	44.1	39.0	19.7
Green Ext Time (p_c), s	0.8	10.2	0.1	2.4	0.1	18.5	1.7	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	52.9
HCM 7th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.



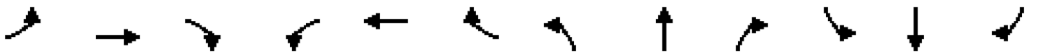
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	139	162	230	220	105	101	244	151	114	514	85
Future Volume (veh/h)	51	139	162	230	220	105	101	244	151	114	514	85
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	165	193	247	237	113	125	301	186	133	598	99
Peak Hour Factor	0.84	0.84	0.84	0.93	0.93	0.93	0.81	0.81	0.81	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	79	192	225	313	548	450	182	1572	684	191	1581	677
Arrive On Green	0.04	0.25	0.25	0.09	0.29	0.29	0.05	0.44	0.44	0.06	0.44	0.44
Sat Flow, veh/h	1781	780	913	3456	1870	1538	3456	3554	1548	3456	3554	1523
Grp Volume(v), veh/h	61	0	358	247	237	113	125	301	186	133	598	99
Grp Sat Flow(s),veh/h/ln	1781	0	1693	1728	1870	1538	1728	1777	1548	1728	1777	1523
Q Serve(g_s), s	3.9	0.0	23.4	8.1	11.9	6.5	4.1	6.0	8.8	4.4	13.0	4.5
Cycle Q Clear(g_c), s	3.9	0.0	23.4	8.1	11.9	6.5	4.1	6.0	8.8	4.4	13.0	4.5
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	79	0	417	313	548	450	182	1572	684	191	1581	677
V/C Ratio(X)	0.77	0.00	0.86	0.79	0.43	0.25	0.69	0.19	0.27	0.70	0.38	0.15
Avail Cap(c_a), veh/h	163	0	571	465	709	583	286	1572	684	286	1581	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.80	0.80	0.80	0.86	0.86	0.86	0.84	0.84	0.84
Uniform Delay (d), s/veh	54.9	0.0	41.8	51.7	33.2	31.3	54.0	19.7	20.5	53.9	21.5	19.1
Incr Delay (d2), s/veh	14.8	0.0	9.4	4.4	0.4	0.2	3.9	0.2	0.8	3.8	0.6	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	10.7	3.7	5.4	0.0	1.9	2.5	3.3	2.0	5.4	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.6	0.0	51.2	56.0	33.6	31.5	57.9	19.9	21.3	57.7	22.1	19.5
LnGrp LOS	E		D	E	C	C	E	B	C	E	C	B
Approach Vol, veh/h		419			597			612			830	
Approach Delay, s/veh		53.9			42.5			28.1			27.5	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	56.7	14.9	33.6	10.5	57.0	9.5	39.0
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	32.6	15.6	* 39	9.6	* 33	10.6	44.0
Max Q Clear Time (g_c+I1), s	6.4	10.8	10.1	25.4	6.1	15.0	5.9	13.9
Green Ext Time (p_c), s	0.1	2.4	0.4	1.8	0.1	3.9	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	35.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	162	72	54	333	112	26	62	5	123	233	149
Future Volume (veh/h)	100	162	72	54	333	112	26	62	5	123	233	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	116	188	84	64	392	132	35	83	7	143	271	173
Peak Hour Factor	0.86	0.86	0.86	0.85	0.85	0.85	0.75	0.75	0.75	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	149	737	314	82	699	232	54	612	51	184	537	330
Arrive On Green	0.08	0.31	0.31	0.05	0.27	0.27	0.03	0.18	0.18	0.10	0.26	0.26
Sat Flow, veh/h	1781	2402	1025	1781	2598	862	1781	3309	275	1781	2086	1281
Grp Volume(v), veh/h	116	137	135	64	266	258	35	44	46	143	229	215
Grp Sat Flow(s),veh/h/ln	1781	1777	1650	1781	1777	1683	1781	1777	1807	1781	1777	1590
Q Serve(g_s), s	3.4	3.1	3.3	1.9	6.8	7.0	1.0	1.1	1.1	4.1	5.8	6.1
Cycle Q Clear(g_c), s	3.4	3.1	3.3	1.9	6.8	7.0	1.0	1.1	1.1	4.1	5.8	6.1
Prop In Lane	1.00		0.62	1.00		0.51	1.00		0.15	1.00		0.81
Lane Grp Cap(c), veh/h	149	545	506	82	478	453	54	329	334	184	458	410
V/C Ratio(X)	0.78	0.25	0.27	0.78	0.56	0.57	0.65	0.13	0.14	0.78	0.50	0.52
Avail Cap(c_a), veh/h	232	1001	929	202	970	919	202	907	922	289	980	877
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	13.8	13.8	25.0	16.6	16.7	25.4	18.0	18.0	23.1	16.7	16.9
Incr Delay (d2), s/veh	8.4	0.2	0.3	14.6	1.0	1.1	12.2	0.2	0.2	6.9	0.8	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	1.1	1.1	1.1	2.5	2.5	0.6	0.4	0.4	1.9	2.1	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.2	14.0	14.1	39.6	17.6	17.8	37.6	18.2	18.2	30.1	17.6	17.9
LnGrp LOS	C	B	B	D	B	B	D	B	B	C	B	B
Approach Vol, veh/h		388			588			125			587	
Approach Delay, s/veh		19.5			20.1			23.6			20.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.8	21.1	6.0	18.9	8.8	19.1	9.9	15.1
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.0	29.8	6.0	29.2	6.9	28.9	8.6	* 27
Max Q Clear Time (g_c+I1), s	3.9	5.3	3.0	8.1	5.4	9.0	6.1	3.1
Green Ext Time (p_c), s	0.0	1.5	0.0	2.5	0.0	3.0	0.1	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	20.4
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	20	73	0	66	9	0
Future Vol, veh/h	20	73	0	66	9	0
Peak Hour Factor	0.82	0.82	0.75	0.75	0.56	0.56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	89	0	88	16	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7	7.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	22%	100%
Vol Right, %	0%	78%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	9	93	66
LT Vol	9	0	0
Through Vol	0	20	66
RT Vol	0	73	0
Lane Flow Rate	16	113	88
Geometry Grp	1	1	1
Degree of Util (X)	0.02	0.112	0.099
Departure Headway (Hd)	4.479	3.556	4.046
Convergence, Y/N	Yes	Yes	Yes
Cap	793	1006	886
Service Time	2.539	1.585	2.068
HCM Lane V/C Ratio	0.02	0.112	0.099
HCM Control Delay, s/veh	7.6	7	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3

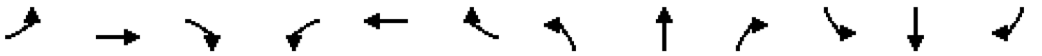
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	175	290	42	208	127	150	306	20	128	535	103
Future Volume (veh/h)	98	175	290	42	208	127	150	306	20	128	535	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	211	349	56	277	169	176	360	24	156	652	126
Peak Hour Factor	0.83	0.83	0.83	0.75	0.75	0.75	0.85	0.85	0.85	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	221	366	71	335	205	211	925	61	193	764	147
Arrive On Green	0.08	0.36	0.36	0.04	0.31	0.31	0.12	0.27	0.27	0.11	0.26	0.26
Sat Flow, veh/h	1781	622	1030	1781	1074	655	1781	3369	223	1781	2941	567
Grp Volume(v), veh/h	118	0	560	56	0	446	176	189	195	156	394	384
Grp Sat Flow(s),veh/h/ln	1781	0	1652	1781	0	1730	1781	1777	1816	1781	1777	1731
Q Serve(g_s), s	5.5	0.0	27.9	2.6	0.0	20.2	8.2	7.3	7.4	7.2	17.8	17.8
Cycle Q Clear(g_c), s	5.5	0.0	27.9	2.6	0.0	20.2	8.2	7.3	7.4	7.2	17.8	17.8
Prop In Lane	1.00		0.62	1.00		0.38	1.00		0.12	1.00		0.33
Lane Grp Cap(c), veh/h	148	0	587	71	0	540	211	488	499	193	462	450
V/C Ratio(X)	0.80	0.00	0.95	0.78	0.00	0.83	0.83	0.39	0.39	0.81	0.85	0.86
Avail Cap(c_a), veh/h	160	0	589	110	0	568	224	488	499	321	526	513
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.0	0.0	26.5	40.2	0.0	26.9	36.4	24.9	24.9	36.8	29.7	29.7
Incr Delay (d2), s/veh	22.4	0.0	26.0	17.9	0.0	9.4	21.9	0.5	0.5	7.7	11.6	12.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	14.6	1.5	0.0	9.4	4.7	3.0	3.1	3.4	8.6	8.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	60.4	0.0	52.6	58.0	0.0	36.3	58.3	25.4	25.4	44.5	41.3	41.9
LnGrp LOS	E		D	E		D	E	C	C	D	D	D
Approach Vol, veh/h		678			502			560			934	
Approach Delay, s/veh		54.0			38.7			35.7			42.1	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.2	28.6	7.8	34.9	14.4	27.3	11.4	31.3
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	15.2	* 21	5.2	30.1	10.6	25.0	7.6	27.7
Max Q Clear Time (g_c+I1), s	9.2	9.4	4.6	29.9	10.2	19.8	7.5	22.2
Green Ext Time (p_c), s	0.2	1.6	0.0	0.1	0.0	2.1	0.0	1.4

Intersection Summary	
HCM 7th Control Delay, s/veh	43.1
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	453	1925	103	151	1336	228	197	485	138	367	331	292
Future Volume (veh/h)	453	1925	103	151	1336	228	197	485	138	367	331	292
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	472	2005	107	170	1501	256	221	545	155	403	364	321
Peak Hour Factor	0.96	0.96	0.96	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	513	2467	871	207	2015	814	267	735	316	445	918	396
Arrive On Green	0.15	0.48	0.48	0.06	0.39	0.39	0.08	0.21	0.21	0.13	0.26	0.26
Sat Flow, veh/h	3456	5106	1549	3456	5106	1545	3456	3554	1527	3456	3554	1535
Grp Volume(v), veh/h	472	2005	107	170	1501	256	221	545	155	403	364	321
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1728	1702	1545	1728	1777	1527	1728	1777	1535
Q Serve(g_s), s	21.6	53.5	5.2	7.8	40.3	15.1	10.1	23.0	14.3	18.4	13.5	31.4
Cycle Q Clear(g_c), s	21.6	53.5	5.2	7.8	40.3	15.1	10.1	23.0	14.3	18.4	13.5	31.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	513	2467	871	207	2015	814	267	735	316	445	918	396
V/C Ratio(X)	0.92	0.81	0.12	0.82	0.75	0.31	0.83	0.74	0.49	0.91	0.40	0.81
Avail Cap(c_a), veh/h	531	2467	871	207	2015	814	361	911	391	467	1028	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	1.00	1.00	1.00
Uniform Delay (d), s/veh	67.2	35.2	16.6	74.3	41.5	21.8	72.8	59.4	56.0	68.7	49.0	55.6
Incr Delay (d2), s/veh	20.9	3.1	0.3	22.3	2.6	1.0	10.2	2.3	1.1	20.6	0.3	9.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.9	22.3	1.9	4.1	17.2	5.7	4.8	10.5	5.6	9.3	6.0	13.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.1	38.2	16.9	96.6	44.1	22.8	82.9	61.8	57.1	89.3	49.3	65.5
LnGrp LOS	F	D	B	F	D	C	F	E	E	F	D	E
Approach Vol, veh/h		2584			1927			921			1088	
Approach Delay, s/veh		46.5			45.9			66.1			68.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	82.6	16.8	46.6	28.2	68.4	25.0	38.4
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	9.6	68.4	16.7	* 46	24.6	* 54	21.6	41.0
Max Q Clear Time (g_c+I1), s	9.8	55.5	12.1	33.4	23.6	42.3	20.4	25.0
Green Ext Time (p_c), s	0.0	10.2	0.3	2.8	0.2	7.8	0.2	3.6

Intersection Summary	
HCM 7th Control Delay, s/veh	52.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

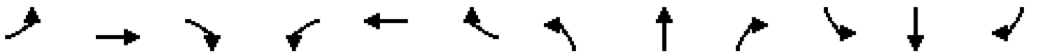
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	333	1943	84	406	1597	655	156	289	404	551	196	130
Future Volume (veh/h)	333	1943	84	406	1597	655	156	289	404	551	196	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	358	2089	90	441	1736	712	179	332	464	619	220	146
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.87	0.87	0.87	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	402	2748	118	487	2504	913	225	335	546	679	1110	666
Arrive On Green	0.12	0.36	0.36	0.14	0.39	0.39	0.06	0.18	0.18	0.20	0.31	0.31
Sat Flow, veh/h	3456	7537	325	3456	6434	1545	3563	1870	3042	3456	3554	1540
Grp Volume(v), veh/h	358	1679	500	441	1736	712	179	332	464	619	220	146
Grp Sat Flow(s),veh/h/ln	1728	1515	1802	1728	1609	1545	1781	1870	1521	1728	1777	1540
Q Serve(g_s), s	16.3	39.0	39.0	20.1	36.1	56.7	7.9	28.3	23.6	28.1	7.3	9.6
Cycle Q Clear(g_c), s	16.3	39.0	39.0	20.1	36.1	56.7	7.9	28.3	23.6	28.1	7.3	9.6
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	402	2210	657	487	2504	913	225	335	546	679	1110	666
V/C Ratio(X)	0.89	0.76	0.76	0.91	0.69	0.78	0.79	0.99	0.85	0.91	0.20	0.22
Avail Cap(c_a), veh/h	438	2210	657	531	2504	913	312	335	546	790	1139	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.81	0.81	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.7	44.7	44.7	67.7	40.9	25.5	73.9	65.5	63.6	62.9	40.3	28.8
Incr Delay (d2), s/veh	18.8	2.5	8.1	18.2	1.6	6.6	7.7	41.3	10.1	13.6	0.1	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.2	14.8	18.7	10.0	14.4	21.6	3.8	17.2	9.8	13.5	3.2	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	88.5	47.2	52.8	85.9	42.5	32.0	81.6	106.8	73.7	76.5	40.4	29.0
LnGrp LOS	F	D	D	F	D	C	F	F	E	E	D	C
Approach Vol, veh/h		2537			2889			975			985	
Approach Delay, s/veh		54.1			46.5			86.4			61.4	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.9	63.2	14.5	55.3	23.0	67.2	35.8	34.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	24.6	51.1	14.0	51.3	20.3	55.4	36.6	28.7
Max Q Clear Time (g_c+I1), s	22.1	41.0	9.9	11.6	18.3	58.7	30.1	30.3
Green Ext Time (p_c), s	0.4	8.3	0.2	1.9	0.3	0.0	1.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	56.4
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



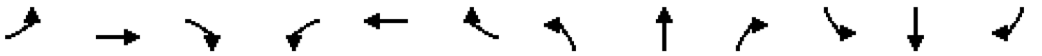
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	302	98	201	292	108	192	617	568	152	293	78
Future Volume (veh/h)	80	302	98	201	292	108	192	617	568	152	293	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	89	336	109	223	324	120	198	636	586	165	318	85
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	364	118	274	536	441	250	1592	693	214	1555	666
Arrive On Green	0.06	0.27	0.27	0.08	0.29	0.29	0.10	0.60	0.60	0.06	0.44	0.44
Sat Flow, veh/h	1781	1348	437	3456	1870	1538	3456	3554	1548	3456	3554	1522
Grp Volume(v), veh/h	89	0	445	223	324	120	198	636	586	165	318	85
Grp Sat Flow(s),veh/h/ln	1781	0	1786	1728	1870	1538	1728	1777	1548	1728	1777	1522
Q Serve(g_s), s	6.7	0.0	33.0	8.6	20.3	8.2	7.6	12.9	41.9	6.4	7.5	4.5
Cycle Q Clear(g_c), s	6.7	0.0	33.0	8.6	20.3	8.2	7.6	12.9	41.9	6.4	7.5	4.5
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	111	0	482	274	536	441	250	1592	693	214	1555	666
V/C Ratio(X)	0.80	0.00	0.92	0.81	0.60	0.27	0.79	0.40	0.85	0.77	0.20	0.13
Avail Cap(c_a), veh/h	178	0	566	320	578	475	340	1592	693	244	1555	666
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.84	0.84	0.84	0.43	0.43	0.43	0.90	0.90	0.90
Uniform Delay (d), s/veh	62.9	0.0	48.3	61.6	41.9	37.5	60.5	17.8	23.7	62.8	23.6	22.8
Incr Delay (d2), s/veh	12.5	0.0	19.3	11.2	1.3	0.3	3.9	0.3	5.6	11.2	0.3	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	17.1	4.2	9.5	3.1	3.4	4.8	14.2	3.1	3.2	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	75.4	0.0	67.6	72.8	43.2	37.8	64.4	18.1	29.3	74.1	23.9	23.1
LnGrp LOS	E		E	E	D	D	E	B	C	E	C	C
Approach Vol, veh/h		534			667			1420			568	
Approach Delay, s/veh		68.9			52.1			29.2			38.3	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.8	66.3	15.2	41.7	14.2	64.9	12.9	44.0
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	51.6	12.6	* 43	13.4	* 48	13.6	42.0
Max Q Clear Time (g_c+I1), s	8.4	43.9	10.6	35.0	9.6	9.5	8.7	22.3
Green Ext Time (p_c), s	0.1	3.8	0.1	1.7	0.2	2.3	0.1	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	42.3
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	333	104	38	183	173	59	152	32	101	98	150
Future Volume (veh/h)	314	333	104	38	183	173	59	152	32	101	98	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	338	358	112	40	193	182	63	162	34	120	117	179
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.94	0.94	0.94	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	395	1083	333	57	386	333	80	490	100	154	372	320
Arrive On Green	0.22	0.41	0.41	0.03	0.22	0.22	0.04	0.17	0.17	0.09	0.21	0.21
Sat Flow, veh/h	1781	2658	818	1781	1777	1529	1781	2915	594	1781	1777	1527
Grp Volume(v), veh/h	338	237	233	40	193	182	63	97	99	120	117	179
Grp Sat Flow(s),veh/h/ln	1781	1777	1699	1781	1777	1529	1781	1777	1732	1781	1777	1527
Q Serve(g_s), s	11.3	5.7	5.8	1.4	5.9	6.6	2.2	3.0	3.1	4.1	3.5	6.5
Cycle Q Clear(g_c), s	11.3	5.7	5.8	1.4	5.9	6.6	2.2	3.0	3.1	4.1	3.5	6.5
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	395	724	692	57	386	333	80	298	291	154	372	320
V/C Ratio(X)	0.86	0.33	0.34	0.70	0.50	0.55	0.79	0.32	0.34	0.78	0.31	0.56
Avail Cap(c_a), veh/h	534	1166	1115	187	820	705	147	774	754	207	822	707
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	12.6	12.6	29.7	21.3	21.5	29.3	22.7	22.8	27.8	20.7	21.9
Incr Delay (d2), s/veh	9.9	0.3	0.3	14.3	1.0	1.4	15.9	0.6	0.7	12.7	0.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	2.0	2.0	0.8	2.4	2.3	1.2	1.2	1.3	2.1	1.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	33.1	12.8	12.9	44.0	22.3	23.0	45.3	23.3	23.5	40.4	21.2	23.5
LnGrp LOS	C	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		808			415			259			416	
Approach Delay, s/veh		21.3			24.7			28.7			27.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	30.2	7.2	18.3	18.2	18.4	9.7	15.7
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.5	40.7	5.1	28.7	18.6	28.6	7.2	* 27
Max Q Clear Time (g_c+I1), s	3.4	7.8	4.2	8.5	13.3	8.6	6.1	5.1
Green Ext Time (p_c), s	0.0	3.0	0.0	1.6	0.5	2.1	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	24.5
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	51	17	2	25	68	1
Future Vol, veh/h	51	17	2	25	68	1
Peak Hour Factor	0.80	0.80	0.84	0.84	0.62	0.62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	64	21	2	30	110	2
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.5	7.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	99%	0%	7%
Vol Thru, %	0%	75%	93%
Vol Right, %	1%	25%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	68	27
LT Vol	68	0	2
Through Vol	0	51	25
RT Vol	1	17	0
Lane Flow Rate	111	85	32
Geometry Grp	1	1	1
Degree of Util (X)	0.134	0.095	0.038
Departure Headway (Hd)	4.326	4.004	4.211
Convergence, Y/N	Yes	Yes	Yes
Cap	824	883	838
Service Time	2.38	2.082	2.298
HCM Lane V/C Ratio	0.135	0.096	0.038
HCM Control Delay, s/veh	8.1	7.5	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	211	141	342	31	161	120	188	993	57	103	351	80
Future Volume (veh/h)	211	141	342	31	161	120	188	993	57	103	351	80
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	245	164	398	35	181	135	216	1141	66	118	403	92
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	270	169	411	45	225	168	243	1363	79	142	972	219
Arrive On Green	0.15	0.36	0.36	0.03	0.23	0.23	0.14	0.40	0.40	0.03	0.11	0.11
Sat Flow, veh/h	1781	475	1152	1781	979	730	1781	3405	197	1781	2852	643
Grp Volume(v), veh/h	245	0	562	35	0	316	216	595	612	118	249	246
Grp Sat Flow(s),veh/h/ln	1781	0	1626	1781	0	1708	1781	1777	1825	1781	1777	1719
Q Serve(g_s), s	18.4	0.0	46.2	2.7	0.0	23.8	16.2	41.1	41.1	9.0	17.7	18.1
Cycle Q Clear(g_c), s	18.4	0.0	46.2	2.7	0.0	23.8	16.2	41.1	41.1	9.0	17.7	18.1
Prop In Lane	1.00		0.71	1.00		0.43	1.00		0.11	1.00		0.37
Lane Grp Cap(c), veh/h	270	0	581	45	0	394	243	711	731	142	606	586
V/C Ratio(X)	0.91	0.00	0.97	0.78	0.00	0.80	0.89	0.84	0.84	0.83	0.41	0.42
Avail Cap(c_a), veh/h	314	0	587	68	0	394	351	711	731	160	606	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92
Uniform Delay (d), s/veh	56.7	0.0	43.0	65.9	0.0	49.4	57.7	36.8	36.8	65.3	47.7	47.8
Incr Delay (d2), s/veh	26.0	0.0	29.0	26.9	0.0	11.4	17.3	11.2	11.0	25.1	1.9	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	0.0	23.1	1.5	0.0	11.4	8.4	19.5	20.0	5.2	8.8	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.8	0.0	72.0	92.8	0.0	60.8	75.0	48.0	47.8	90.3	49.6	49.8
LnGrp LOS	F		E	F		E	E	D	D	F	D	D
Approach Vol, veh/h		807			351			1423			613	
Approach Delay, s/veh		75.2			64.0			52.0			57.5	
Approach LOS		E			E			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.9	59.9	7.8	53.5	23.0	51.8	25.0	36.2
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	12.2	* 51	5.2	49.1	26.8	35.8	24.0	30.3
Max Q Clear Time (g_c+I1), s	11.0	43.1	4.7	48.2	18.2	20.1	20.4	25.8
Green Ext Time (p_c), s	0.0	4.5	0.0	0.4	0.4	2.5	0.2	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	60.3
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX D

SANDAG'S 2016 AMB2+ AND 2050 ABM2+ TRAFFIC VOLUMES

#4139 - Miramar College Growth Factor Calcs

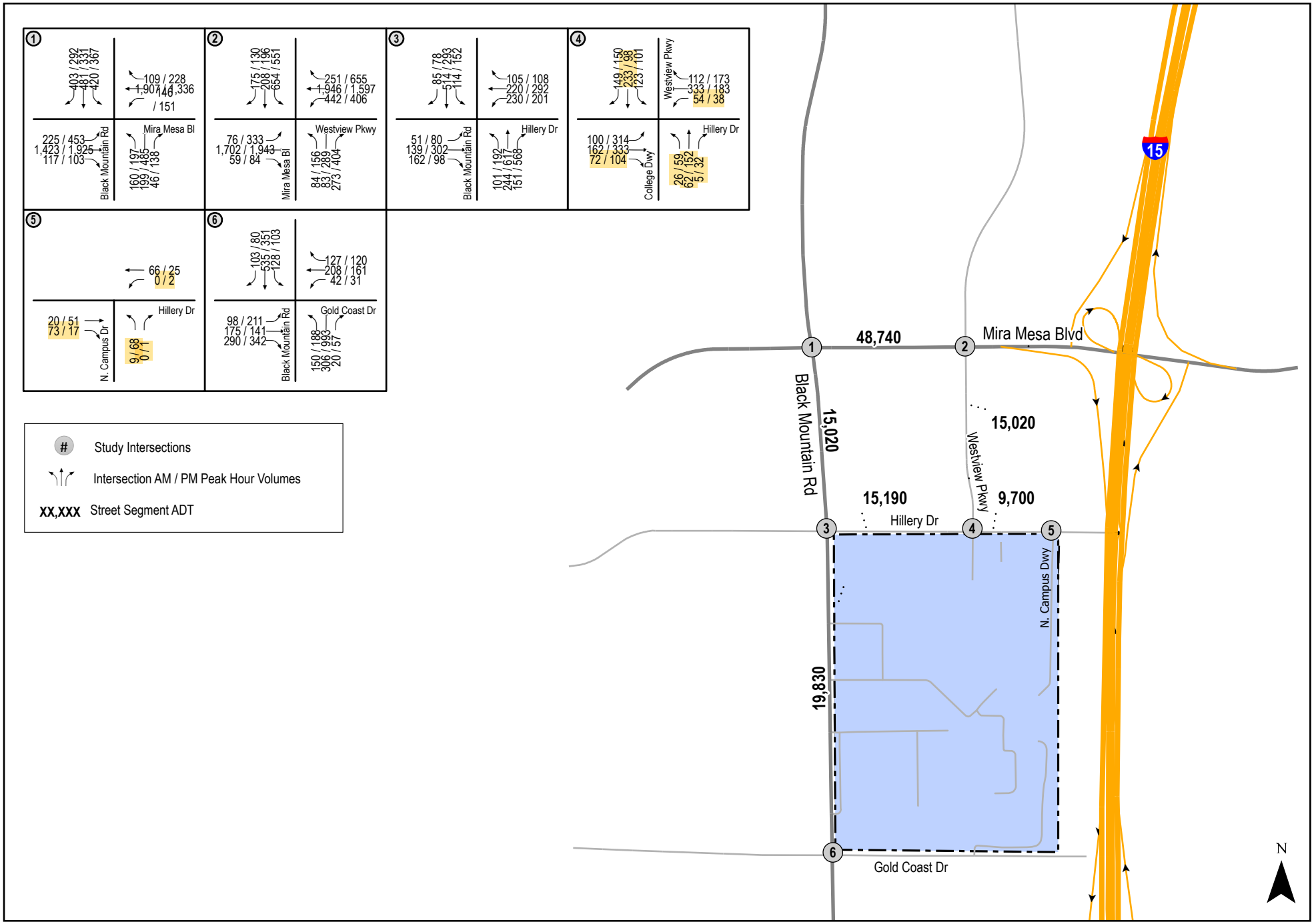
INTERSECTION	DIRECTION	LEG	SANDAG ABM2+ YEAR 2016	SANDAG ABM2+ YEAR 2050	OVERALL GROWTH FACTOR (34 YEARS)	ANNUAL GROWTH FACTOR
1. Black Mountain Road / Mira Mesa Blvd	**S**b	**North**	33,700	36,400	8%	0.2%
	Wb	**East**	46,200	44,100	-5%	-0.1%
	Nb	**South**	26,400	28,300	7%	0.2%
	Eb	**West**	45,800	44,100	-4%	-0.1%
2. Mira Mesa Blvd / Westview Parkway	**S**b	**North**	35,000	35,200	1%	0.0%
	Wb	**East**	80,000	76,500	-4%	-0.1%
	Nb	**South**	23,300	21,100	-9%	-0.3%
	Eb	**West**	46,200	44,100	-5%	-0.1%
3. Black Mountain Road / Hillery Drive	**S**b	**North**	22,400	24,900	11%	0.3%
	Wb	**East**	13,200	12,500	-5%	-0.2%
	Nb	**South**	24,200	28,000	16%	0.5%
	Eb	**West**	16,700	13,600	-19%	-0.5%
4. Hillery Drive / Westview Parkway	**S**b	**North**	12,500	12,800	2%	0.1%
	Wb	**East**	19,600	19,800	1%	0.0%
	Nb	**South**	5,200	5,500	6%	0.2%
	Eb	**West**	13,800	13,100	-5%	-0.1%
5. Hillery Drive / N. Campus Drive	**S**b	**North**				
	Wb	**East**	19,500	20,500	5%	0.2%
	Nb	**South**				
	Eb	**West**	19,500	20,500	5%	0.2%
6. Black Mountain Road / Gold Coast Drive	**S**b	**North**	23,600	28,100	19%	0.6%
	Wb	**East**	4,500	5,100	13%	0.4%
	Nb	**South**	30,800	30,500	-1%	0.0%
	Eb	**West**	15,200	10,800	-29%	-0.9%

AVERAGE GROWTH	**0.01%**
AVERAGE GROWTH USING ONLY DATA SETS WITH POSITIVE GROWTH	**0.23%**

0.23% for 19 years = 4.4% growth

APPENDIX E

FIGURE IDENTIFYING INTERSECTION MOVEMENTS TO/FROM CAMPUS WHERE THE 0.5% ANNUAL GROWTH FACTOR WAS NOT APPLIED

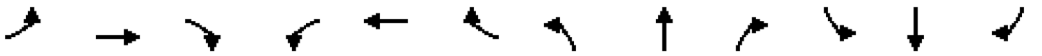


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Figure 4-2
Existing Traffic Volumes

APPENDIX F

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – YEAR 2045



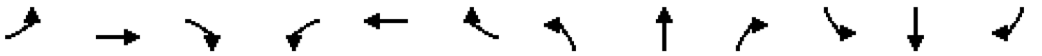
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	1486	122	152	1991	114	167	208	48	438	502	421
Future Volume (veh/h)	235	1486	122	152	1991	114	167	208	48	438	502	421
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	1598	131	158	2074	119	204	254	59	471	540	453
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.82	0.82	0.82	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2236	790	202	2132	870	246	857	370	488	1106	479
Arrive On Green	0.08	0.44	0.44	0.06	0.42	0.42	0.07	0.24	0.24	0.14	0.31	0.31
Sat Flow, veh/h	3456	5106	1547	3456	5106	1547	3456	3554	1532	3456	3554	1540
Grp Volume(v), veh/h	253	1598	131	158	2074	119	204	254	59	471	540	453
Grp Sat Flow(s),veh/h/ln	1728	1702	1547	1728	1702	1547	1728	1777	1532	1728	1777	1540
Q Serve(g_s), s	11.6	41.0	7.3	7.2	63.7	5.9	9.3	9.3	4.9	21.7	19.7	45.9
Cycle Q Clear(g_c), s	11.6	41.0	7.3	7.2	63.7	5.9	9.3	9.3	4.9	21.7	19.7	45.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	2236	790	202	2132	870	246	857	370	488	1106	479
V/C Ratio(X)	0.93	0.71	0.17	0.78	0.97	0.14	0.83	0.30	0.16	0.96	0.49	0.95
Avail Cap(c_a), veh/h	272	2236	790	270	2132	870	263	911	393	488	1151	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.3	36.8	21.1	74.3	45.7	16.9	73.4	49.6	47.9	68.3	44.7	53.8
Incr Delay (d2), s/veh	36.3	2.0	0.5	10.2	14.0	0.3	18.3	0.2	0.2	31.8	0.3	26.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	17.2	2.7	3.5	29.0	2.2	4.7	4.2	1.9	11.6	8.7	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	109.5	38.8	21.5	84.5	59.7	17.2	91.6	49.8	48.1	100.1	45.1	80.4
LnGrp LOS	F	D	C	F	E	B	F	D	D	F	D	F
Approach Vol, veh/h		1982			2351			517			1464	
Approach Delay, s/veh		46.7			59.2			66.1			73.7	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	75.4	15.8	55.1	17.0	72.1	27.0	43.9
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	12.5	64.5	12.2	* 52	12.6	* 65	22.6	41.0
Max Q Clear Time (g_c+I1), s	9.2	43.0	11.3	47.9	13.6	65.7	23.7	11.3
Green Ext Time (p_c), s	0.1	12.3	0.1	1.9	0.0	0.0	0.0	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	59.2
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



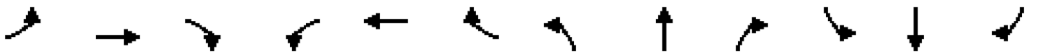
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1777	62	461	2032	262	88	87	285	683	217	183
Future Volume (veh/h)	79	1777	62	461	2032	262	88	87	285	683	217	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.94	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	1974	69	512	2258	291	117	116	380	854	271	229
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.75	0.75	0.75	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	2628	92	561	3026	1145	161	207	330	909	1167	565
Arrive On Green	0.04	0.35	0.35	0.16	0.47	0.47	0.05	0.11	0.11	0.26	0.33	0.33
Sat Flow, veh/h	3456	7608	266	3456	6434	1549	3563	1870	2987	3456	3554	1541
Grp Volume(v), veh/h	88	1572	471	512	2258	291	117	116	380	854	271	229
Grp Sat Flow(s),veh/h/ln	1728	1515	1814	1728	1609	1549	1781	1870	1494	1728	1777	1541
Q Serve(g_s), s	4.0	36.7	36.7	23.3	45.8	9.9	5.2	9.4	17.7	38.7	8.9	17.7
Cycle Q Clear(g_c), s	4.0	36.7	36.7	23.3	45.8	9.9	5.2	9.4	17.7	38.7	8.9	17.7
Prop In Lane	1.00		0.15	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	2093	627	561	3026	1145	161	207	330	909	1167	565
V/C Ratio(X)	0.68	0.75	0.75	0.91	0.75	0.25	0.73	0.56	1.15	0.94	0.23	0.41
Avail Cap(c_a), veh/h	222	2093	627	618	3026	1145	220	207	330	963	1167	565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	46.3	46.3	65.9	34.6	7.0	75.4	67.5	71.1	57.7	39.1	37.8
Incr Delay (d2), s/veh	6.2	2.5	8.1	17.1	1.7	0.5	6.9	3.1	94.8	16.0	0.1	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.0	17.8	11.5	17.9	3.2	2.5	4.7	11.1	18.7	3.9	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.3	48.8	54.4	83.0	36.3	7.5	82.3	70.6	166.0	73.7	39.2	38.3
LnGrp LOS	F	D	D	F	D	A	F	E	F	E	D	D
Approach Vol, veh/h		2131			3061			613			1354	
Approach Delay, s/veh		51.4			41.4			132.0			60.8	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.4	60.2	11.6	57.8	10.4	80.2	46.5	23.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	28.6	50.1	9.9	52.4	10.3	68.4	44.6	17.7
Max Q Clear Time (g_c+I1), s	25.3	38.7	7.2	19.7	6.0	47.8	40.7	19.7
Green Ext Time (p_c), s	0.7	8.8	0.1	2.5	0.1	16.8	1.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	55.8
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



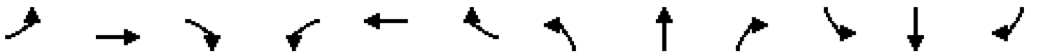
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	145	169	240	230	110	105	255	158	119	537	89
Future Volume (veh/h)	53	145	169	240	230	110	105	255	158	119	537	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	173	201	258	247	118	130	315	195	138	624	103
Peak Hour Factor	0.84	0.84	0.84	0.93	0.93	0.93	0.81	0.81	0.81	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	199	231	324	564	464	187	1530	666	196	1539	659
Arrive On Green	0.05	0.25	0.25	0.09	0.30	0.30	0.05	0.43	0.43	0.06	0.43	0.43
Sat Flow, veh/h	1781	783	910	3456	1870	1539	3456	3554	1547	3456	3554	1522
Grp Volume(v), veh/h	63	0	374	258	247	118	130	315	195	138	624	103
Grp Sat Flow(s),veh/h/ln	1781	0	1694	1728	1870	1539	1728	1777	1547	1728	1777	1522
Q Serve(g_s), s	4.1	0.0	24.5	8.5	12.3	6.7	4.3	6.4	9.5	4.6	14.0	4.8
Cycle Q Clear(g_c), s	4.1	0.0	24.5	8.5	12.3	6.7	4.3	6.4	9.5	4.6	14.0	4.8
Prop In Lane	1.00		0.54	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	0	429	324	564	464	187	1530	666	196	1539	659
V/C Ratio(X)	0.77	0.00	0.87	0.80	0.44	0.25	0.69	0.21	0.29	0.70	0.41	0.16
Avail Cap(c_a), veh/h	163	0	571	465	709	584	286	1530	666	286	1539	659
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.78	0.78	0.78	0.84	0.84	0.84	0.84	0.84	0.84
Uniform Delay (d), s/veh	54.8	0.0	41.5	51.5	32.6	30.6	53.9	20.6	21.5	53.8	22.6	20.0
Incr Delay (d2), s/veh	14.4	0.0	11.0	4.9	0.4	0.2	3.8	0.3	0.9	3.9	0.7	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	11.4	3.9	5.6	2.5	1.9	2.6	3.6	2.0	5.8	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.2	0.0	52.4	56.4	33.0	30.9	57.7	20.9	22.4	57.6	23.3	20.4
LnGrp LOS	E		D	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		437			623			640			865	
Approach Delay, s/veh		54.9			42.3			28.8			28.4	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	55.4	15.3	34.4	10.7	55.6	9.7	40.0
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	32.6	15.6	* 39	9.6	* 33	10.6	44.0
Max Q Clear Time (g_c+I1), s	6.6	11.5	10.5	26.5	6.3	16.0	6.1	14.3
Green Ext Time (p_c), s	0.1	2.5	0.4	1.8	0.1	4.0	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	36.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	169	72	54	348	117	26	62	5	128	233	156
Future Volume (veh/h)	104	169	72	54	348	117	26	62	5	128	233	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	197	84	64	409	138	35	83	7	149	271	181
Peak Hour Factor	0.86	0.86	0.86	0.85	0.85	0.85	0.75	0.75	0.75	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	768	314	81	710	236	54	601	50	191	529	340
Arrive On Green	0.09	0.32	0.32	0.05	0.27	0.27	0.03	0.18	0.18	0.11	0.26	0.26
Sat Flow, veh/h	1781	2438	996	1781	2595	864	1781	3309	275	1781	2046	1314
Grp Volume(v), veh/h	121	141	140	64	278	269	35	44	46	149	234	218
Grp Sat Flow(s),veh/h/ln	1781	1777	1657	1781	1777	1683	1781	1777	1807	1781	1777	1583
Q Serve(g_s), s	3.6	3.2	3.4	1.9	7.3	7.5	1.1	1.1	1.2	4.4	6.1	6.4
Cycle Q Clear(g_c), s	3.6	3.2	3.4	1.9	7.3	7.5	1.1	1.1	1.2	4.4	6.1	6.4
Prop In Lane	1.00		0.60	1.00		0.51	1.00		0.15	1.00		0.83
Lane Grp Cap(c), veh/h	155	560	522	81	486	460	54	323	328	191	459	409
V/C Ratio(X)	0.78	0.25	0.27	0.79	0.57	0.58	0.65	0.14	0.14	0.78	0.51	0.53
Avail Cap(c_a), veh/h	227	977	911	197	947	897	197	885	900	283	957	853
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	13.8	13.9	25.6	17.0	17.0	26.0	18.6	18.6	23.6	17.2	17.3
Incr Delay (d2), s/veh	10.0	0.2	0.3	15.3	1.1	1.2	12.4	0.2	0.2	8.1	0.9	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.1	1.1	1.1	2.7	2.7	0.6	0.4	0.5	2.1	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.2	14.0	14.2	40.9	18.0	18.2	38.4	18.8	18.8	31.7	18.0	18.4
LnGrp LOS	C	B	B	D	B	B	D	B	B	C	B	B
Approach Vol, veh/h		402			611			125			601	
Approach Delay, s/veh		20.2			20.5			24.3			21.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.9	22.0	6.0	19.3	9.1	19.7	10.2	15.1
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.0	29.8	6.0	29.2	6.9	28.9	8.6	* 27
Max Q Clear Time (g_c+I1), s	3.9	5.4	3.1	8.4	5.6	9.5	6.4	3.2
Green Ext Time (p_c), s	0.0	1.6	0.0	2.5	0.0	3.2	0.1	0.4

Intersection Summary	
HCM 7th Control Delay, s/veh	21.0
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	73	0	69	9	0
Future Vol, veh/h	21	73	0	69	9	0
Peak Hour Factor	0.82	0.82	0.75	0.75	0.56	0.56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	89	0	92	16	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.1	7.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	22%	100%
Vol Right, %	0%	78%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	9	94	69
LT Vol	9	0	0
Through Vol	0	21	69
RT Vol	0	73	0
Lane Flow Rate	16	115	92
Geometry Grp	1	1	1
Degree of Util (X)	0.02	0.113	0.103
Departure Headway (Hd)	4.488	3.564	4.047
Convergence, Y/N	Yes	Yes	Yes
Cap	792	1003	886
Service Time	2.549	1.594	2.069
HCM Lane V/C Ratio	0.02	0.115	0.104
HCM Control Delay, s/veh	7.6	7.1	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.4	0.3

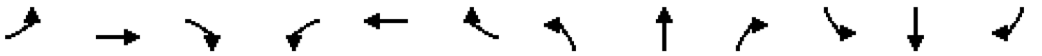
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	183	303	44	217	133	157	319	21	134	559	108
Future Volume (veh/h)	102	183	303	44	217	133	157	319	21	134	559	108
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	220	365	59	289	177	185	375	25	163	682	132
Peak Hour Factor	0.83	0.83	0.83	0.75	0.75	0.75	0.85	0.85	0.85	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	154	216	359	76	327	200	219	944	63	200	780	151
Arrive On Green	0.09	0.35	0.35	0.04	0.30	0.30	0.12	0.28	0.28	0.11	0.27	0.27
Sat Flow, veh/h	1781	621	1030	1781	1072	657	1781	3370	223	1781	2940	568
Grp Volume(v), veh/h	123	0	585	59	0	466	185	197	203	163	412	402
Grp Sat Flow(s),veh/h/ln	1781	0	1652	1781	0	1729	1781	1777	1816	1781	1777	1731
Q Serve(g_s), s	5.9	0.0	30.1	2.8	0.0	22.2	8.8	7.7	7.8	7.7	19.2	19.2
Cycle Q Clear(g_c), s	5.9	0.0	30.1	2.8	0.0	22.2	8.8	7.7	7.8	7.7	19.2	19.2
Prop In Lane	1.00		0.62	1.00		0.38	1.00		0.12	1.00		0.33
Lane Grp Cap(c), veh/h	154	0	576	76	0	527	219	498	509	200	471	459
V/C Ratio(X)	0.80	0.00	1.02	0.78	0.00	0.88	0.85	0.40	0.40	0.81	0.87	0.88
Avail Cap(c_a), veh/h	157	0	576	107	0	555	219	498	509	313	514	501
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.7	0.0	28.1	41.0	0.0	28.6	37.1	25.2	25.2	37.5	30.4	30.4
Incr Delay (d2), s/veh	24.6	0.0	41.7	20.7	0.0	15.2	25.2	0.5	0.5	8.8	14.5	15.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	17.9	1.7	0.0	11.0	5.2	3.2	3.3	3.7	9.6	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	63.3	0.0	69.8	61.7	0.0	43.8	62.3	25.7	25.7	46.3	44.9	45.4
LnGrp LOS	E		F	E		D	E	C	C	D	D	D
Approach Vol, veh/h		708			525			585			977	
Approach Delay, s/veh		68.7			45.8			37.3			45.3	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	29.6	8.1	35.0	15.0	28.3	11.8	31.2
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	15.2	* 21	5.2	30.1	10.6	25.0	7.6	27.7
Max Q Clear Time (g_c+I1), s	9.7	9.8	4.8	32.1	10.8	21.2	7.9	24.2
Green Ext Time (p_c), s	0.2	1.6	0.0	0.0	0.0	1.7	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	49.6
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



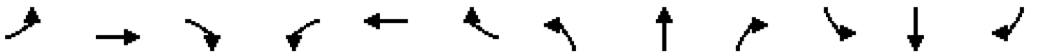
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	473	2010	108	158	1395	238	206	506	144	383	346	305
Future Volume (veh/h)	473	2010	108	158	1395	238	206	506	144	383	346	305
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	493	2094	112	178	1567	267	231	569	162	421	380	335
Peak Hour Factor	0.96	0.96	0.96	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	530	2421	861	207	1944	799	277	751	323	460	940	406
Arrive On Green	0.15	0.47	0.47	0.06	0.38	0.38	0.08	0.21	0.21	0.13	0.26	0.26
Sat Flow, veh/h	3456	5106	1549	3456	5106	1545	3456	3554	1528	3456	3554	1535
Grp Volume(v), veh/h	493	2094	112	178	1567	267	231	569	162	421	380	335
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1728	1702	1545	1728	1777	1528	1728	1777	1535
Q Serve(g_s), s	22.5	58.5	5.6	8.2	43.9	16.3	10.5	24.1	15.0	19.2	14.1	32.8
Cycle Q Clear(g_c), s	22.5	58.5	5.6	8.2	43.9	16.3	10.5	24.1	15.0	19.2	14.1	32.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	2421	861	207	1944	799	277	751	323	460	940	406
V/C Ratio(X)	0.93	0.86	0.13	0.86	0.81	0.33	0.83	0.76	0.50	0.91	0.40	0.83
Avail Cap(c_a), veh/h	531	2421	861	207	1944	799	361	911	391	467	1028	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	37.5	17.1	74.5	44.3	22.9	72.5	59.2	55.7	68.5	48.5	55.4
Incr Delay (d2), s/veh	23.0	4.4	0.3	28.4	3.7	1.1	11.1	2.7	1.1	22.4	0.3	11.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	24.7	2.1	4.4	18.9	6.1	5.1	11.0	5.8	9.9	6.3	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.9	41.9	17.4	102.9	48.0	24.0	83.6	61.9	56.7	90.9	48.7	66.6
LnGrp LOS	F	D	B	F	D	C	F	E	E	F	D	E
Approach Vol, veh/h		2699			2012			962			1136	
Approach Delay, s/veh		49.7			49.6			66.2			69.6	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	81.2	17.2	47.6	29.0	66.2	25.7	39.1
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	9.6	68.4	16.7	* 46	24.6	* 54	21.6	41.0
Max Q Clear Time (g_c+I1), s	10.2	60.5	12.5	34.8	24.5	45.9	21.2	26.1
Green Ext Time (p_c), s	0.0	6.8	0.3	2.8	0.0	6.0	0.1	3.7

Intersection Summary	
HCM 7th Control Delay, s/veh	55.3
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



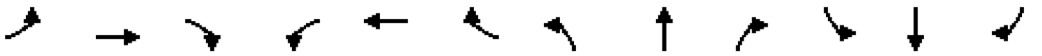
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	2028	88	424	1667	684	163	302	422	575	205	136
Future Volume (veh/h)	348	2028	88	424	1667	684	163	302	422	575	205	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	2181	95	461	1812	743	187	347	485	646	230	153
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.87	0.87	0.87	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	2656	116	504	2432	906	233	335	546	703	1128	680
Arrive On Green	0.12	0.35	0.35	0.15	0.38	0.38	0.07	0.18	0.18	0.20	0.32	0.32
Sat Flow, veh/h	3456	7533	328	3456	6434	1545	3563	1870	3042	3456	3554	1540
Grp Volume(v), veh/h	374	1755	521	461	1812	743	187	347	485	646	230	153
Grp Sat Flow(s),veh/h/ln	1728	1515	1801	1728	1609	1545	1781	1870	1521	1728	1777	1540
Q Serve(g_s), s	17.1	42.2	42.2	21.0	39.0	60.5	8.3	28.7	24.9	29.3	7.6	9.9
Cycle Q Clear(g_c), s	17.1	42.2	42.2	21.0	39.0	60.5	8.3	28.7	24.9	29.3	7.6	9.9
Prop In Lane	1.00		0.18	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	2137	635	504	2432	906	233	335	546	703	1128	680
V/C Ratio(X)	0.90	0.82	0.82	0.91	0.74	0.82	0.80	1.03	0.89	0.92	0.20	0.23
Avail Cap(c_a), veh/h	438	2137	635	531	2432	906	312	335	546	790	1139	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.79	0.79	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	47.2	47.2	67.3	43.1	27.0	73.7	65.7	64.1	62.4	39.9	28.1
Incr Delay (d2), s/veh	20.4	3.7	11.4	19.9	2.1	8.2	8.4	52.8	13.5	14.8	0.1	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	16.2	20.7	10.6	15.7	23.9	4.0	18.5	10.6	14.2	3.3	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.8	50.9	58.6	87.3	45.2	35.2	82.2	118.4	77.6	77.2	40.0	28.2
LnGrp LOS	F	D	E	F	D	D	F	F	E	E	D	C
Approach Vol, veh/h		2650			3016			1019			1029	
Approach Delay, s/veh		57.9			49.2			92.4			61.6	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	27.7	61.3	14.9	56.1	23.7	65.4	36.9	34.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	24.6	51.1	14.0	51.3	20.3	55.4	36.6	28.7
Max Q Clear Time (g_c+I1), s	23.0	44.2	10.3	11.9	19.1	62.5	31.3	30.7
Green Ext Time (p_c), s	0.3	6.0	0.2	2.0	0.2	0.0	1.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	59.5
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	315	102	210	305	113	200	644	593	159	306	81
Future Volume (veh/h)	84	315	102	210	305	113	200	644	593	159	306	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	350	113	233	339	126	206	664	611	173	333	88
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	376	122	283	554	455	257	1542	671	222	1505	644
Arrive On Green	0.06	0.28	0.28	0.08	0.30	0.30	0.10	0.58	0.58	0.06	0.42	0.42
Sat Flow, veh/h	1781	1350	436	3456	1870	1539	3456	3554	1547	3456	3554	1521
Grp Volume(v), veh/h	93	0	463	233	339	126	206	664	611	173	333	88
Grp Sat Flow(s),veh/h/ln	1781	0	1786	1728	1870	1539	1728	1777	1547	1728	1777	1521
Q Serve(g_s), s	7.0	0.0	34.3	9.0	21.2	8.5	7.9	14.3	47.8	6.7	8.1	4.8
Cycle Q Clear(g_c), s	7.0	0.0	34.3	9.0	21.2	8.5	7.9	14.3	47.8	6.7	8.1	4.8
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	0	498	283	554	455	257	1542	671	222	1505	644
V/C Ratio(X)	0.81	0.00	0.93	0.82	0.61	0.28	0.80	0.43	0.91	0.78	0.22	0.14
Avail Cap(c_a), veh/h	178	0	566	320	578	475	340	1542	671	244	1505	644
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.83	0.83	0.83	0.34	0.34	0.34	0.89	0.89	0.89
Uniform Delay (d), s/veh	62.8	0.0	47.8	61.5	41.2	36.7	60.3	19.3	26.4	62.7	24.9	24.0
Incr Delay (d2), s/veh	14.0	0.0	20.7	12.2	1.5	0.3	3.5	0.3	7.8	12.3	0.3	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	17.9	4.4	10.0	3.3	3.5	5.3	16.7	3.3	3.4	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	76.8	0.0	68.4	73.6	42.7	37.0	63.8	19.6	34.2	75.0	25.2	24.4
LnGrp LOS	E		E	E	D	D	E	B	C	E	C	C
Approach Vol, veh/h		556			698			1481			594	
Approach Delay, s/veh		69.8			52.0			31.7			39.6	
Approach LOS		E			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.1	64.4	15.5	42.9	14.5	63.0	13.2	45.3
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	51.6	12.6	* 43	13.4	* 48	13.6	42.0
Max Q Clear Time (g_c+I1), s	8.7	49.8	11.0	36.3	9.9	10.1	9.0	23.2
Green Ext Time (p_c), s	0.0	1.1	0.1	1.6	0.2	2.5	0.1	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	43.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	348	104	38	191	181	59	152	32	105	98	157
Future Volume (veh/h)	328	348	104	38	191	181	59	152	32	105	98	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	353	374	112	40	201	191	63	162	34	125	117	187
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.94	0.94	0.94	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	407	1121	331	57	391	337	80	486	99	159	376	323
Arrive On Green	0.23	0.42	0.42	0.03	0.22	0.22	0.04	0.17	0.17	0.09	0.21	0.21
Sat Flow, veh/h	1781	2688	793	1781	1777	1529	1781	2915	594	1781	1777	1528
Grp Volume(v), veh/h	353	245	241	40	201	191	63	97	99	125	117	187
Grp Sat Flow(s),veh/h/ln	1781	1777	1704	1781	1777	1529	1781	1777	1732	1781	1777	1528
Q Serve(g_s), s	12.3	6.0	6.2	1.4	6.4	7.2	2.3	3.1	3.3	4.4	3.6	7.1
Cycle Q Clear(g_c), s	12.3	6.0	6.2	1.4	6.4	7.2	2.3	3.1	3.3	4.4	3.6	7.1
Prop In Lane	1.00		0.47	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	407	741	710	57	391	337	80	296	289	159	376	323
V/C Ratio(X)	0.87	0.33	0.34	0.71	0.51	0.57	0.79	0.33	0.34	0.78	0.31	0.58
Avail Cap(c_a), veh/h	515	1124	1078	180	790	680	141	746	727	199	793	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	12.7	12.7	30.9	22.1	22.4	30.4	23.6	23.7	28.7	21.4	22.8
Incr Delay (d2), s/veh	12.2	0.3	0.3	14.9	1.0	1.5	15.8	0.6	0.7	14.8	0.5	1.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	2.1	2.1	0.8	2.6	2.5	1.3	1.3	1.3	2.4	1.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	36.0	13.0	13.0	45.8	23.1	23.9	46.2	24.3	24.4	43.5	21.9	24.4
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		839			432			259			429	
Approach Delay, s/veh		22.7			25.5			29.7			29.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	31.7	7.3	18.9	19.1	19.1	10.2	16.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.5	40.7	5.1	28.7	18.6	28.6	7.2	* 27
Max Q Clear Time (g_c+I1), s	3.4	8.2	4.3	9.1	14.3	9.2	6.4	5.3
Green Ext Time (p_c), s	0.0	3.1	0.0	1.6	0.5	2.2	0.0	1.0

Intersection Summary	
HCM 7th Control Delay, s/veh	25.7
HCM 7th LOS	C

Notes

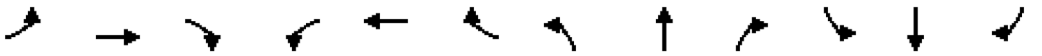
* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	53	17	2	26	68	1
Future Vol, veh/h	53	17	2	26	68	1
Peak Hour Factor	0.80	0.80	0.84	0.84	0.62	0.62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	21	2	31	110	2
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.5	7.5	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	99%	0%	7%
Vol Thru, %	0%	76%	93%
Vol Right, %	1%	24%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	70	28
LT Vol	68	0	2
Through Vol	0	53	26
RT Vol	1	17	0
Lane Flow Rate	111	88	33
Geometry Grp	1	1	1
Degree of Util (X)	0.134	0.097	0.039
Departure Headway (Hd)	4.332	4.01	4.212
Convergence, Y/N	Yes	Yes	Yes
Cap	822	882	838
Service Time	2.386	2.087	2.299
HCM Lane V/C Ratio	0.135	0.1	0.039
HCM Control Delay, s/veh	8.1	7.5	7.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.3	0.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	147	357	32	168	125	196	1037	60	108	366	84
Future Volume (veh/h)	220	147	357	32	168	125	196	1037	60	108	366	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	256	171	415	36	189	140	225	1192	69	124	421	97
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	171	416	46	225	167	252	1335	77	149	942	215
Arrive On Green	0.16	0.36	0.36	0.03	0.23	0.23	0.14	0.39	0.39	0.03	0.11	0.11
Sat Flow, veh/h	1781	475	1152	1781	982	727	1781	3405	197	1781	2846	648
Grp Volume(v), veh/h	256	0	586	36	0	329	225	621	640	124	261	257
Grp Sat Flow(s),veh/h/ln	1781	0	1626	1781	0	1709	1781	1777	1825	1781	1777	1717
Q Serve(g_s), s	19.2	0.0	48.9	2.7	0.0	25.0	16.9	44.5	44.6	9.4	18.7	19.1
Cycle Q Clear(g_c), s	19.2	0.0	48.9	2.7	0.0	25.0	16.9	44.5	44.6	9.4	18.7	19.1
Prop In Lane	1.00		0.71	1.00		0.43	1.00		0.11	1.00		0.38
Lane Grp Cap(c), veh/h	281	0	587	46	0	392	252	697	716	149	588	569
V/C Ratio(X)	0.91	0.00	1.00	0.78	0.00	0.84	0.89	0.89	0.89	0.83	0.44	0.45
Avail Cap(c_a), veh/h	314	0	587	68	0	392	351	697	716	160	588	569
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91
Uniform Delay (d), s/veh	56.4	0.0	43.4	65.9	0.0	50.0	57.4	38.6	38.7	65.2	48.8	49.0
Incr Delay (d2), s/veh	27.7	0.0	36.6	28.2	0.0	14.9	18.7	16.0	15.9	26.6	2.2	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	0.0	25.4	1.6	0.0	12.3	8.8	21.8	22.5	5.5	9.3	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.0	0.0	80.0	94.1	0.0	64.9	76.1	54.6	54.5	91.8	51.0	51.4
LnGrp LOS	F		E	F		E	E	D	D	F	D	D
Approach Vol, veh/h		842			365			1486			642	
Approach Delay, s/veh		81.2			67.8			57.8			59.1	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	58.7	7.9	54.0	23.6	50.4	25.8	36.1
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	12.2	* 51	5.2	49.1	26.8	35.8	24.0	30.3
Max Q Clear Time (g_c+I1), s	11.4	46.6	4.7	50.9	18.9	21.1	21.2	27.0
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	0.4	2.5	0.2	0.6

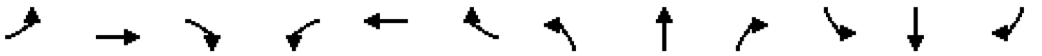
Intersection Summary	
HCM 7th Control Delay, s/veh	65.1
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX G

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – YEAR 2045 + PROJECT



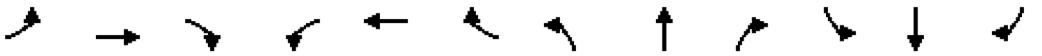
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	235	1495	128	152	1993	120	168	212	49	438	521	421
Future Volume (veh/h)	235	1495	128	152	1993	120	168	212	49	438	521	421
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	253	1608	138	158	2076	125	205	259	60	471	560	453
Peak Hour Factor	0.93	0.93	0.93	0.96	0.96	0.96	0.82	0.82	0.82	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	272	2234	790	202	2130	869	247	859	370	488	1107	480
Arrive On Green	0.08	0.44	0.44	0.06	0.42	0.42	0.07	0.24	0.24	0.14	0.31	0.31
Sat Flow, veh/h	3456	5106	1547	3456	5106	1547	3456	3554	1532	3456	3554	1540
Grp Volume(v), veh/h	253	1608	138	158	2076	125	205	259	60	471	560	453
Grp Sat Flow(s),veh/h/ln	1728	1702	1547	1728	1702	1547	1728	1777	1532	1728	1777	1540
Q Serve(g_s), s	11.6	41.4	7.7	7.2	63.9	6.2	9.4	9.5	4.9	21.7	20.6	45.9
Cycle Q Clear(g_c), s	11.6	41.4	7.7	7.2	63.9	6.2	9.4	9.5	4.9	21.7	20.6	45.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	272	2234	790	202	2130	869	247	859	370	488	1107	480
V/C Ratio(X)	0.93	0.72	0.17	0.78	0.97	0.14	0.83	0.30	0.16	0.96	0.51	0.94
Avail Cap(c_a), veh/h	272	2234	790	270	2130	869	263	911	393	488	1151	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	73.3	37.0	21.2	74.3	45.8	17.0	73.3	49.6	47.9	68.3	45.0	53.7
Incr Delay (d2), s/veh	36.3	2.0	0.5	10.2	14.4	0.3	18.3	0.2	0.2	31.8	0.4	26.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	17.4	2.9	3.5	29.2	2.3	4.8	4.3	1.9	11.6	9.1	21.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	109.5	39.0	21.7	84.5	60.2	17.3	91.6	49.8	48.1	100.1	45.4	80.2
LnGrp LOS	F	D	C	F	E	B	F	D	D	F	D	F
Approach Vol, veh/h		1999			2359			524			1484	
Approach Delay, s/veh		46.7			59.5			66.0			73.4	
Approach LOS		D			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.7	75.3	15.8	55.1	17.0	72.0	27.0	44.0
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	12.5	64.5	12.2	* 52	12.6	* 65	22.6	41.0
Max Q Clear Time (g_c+I1), s	9.2	43.4	11.4	47.9	13.6	65.9	23.7	11.5
Green Ext Time (p_c), s	0.1	12.2	0.1	1.9	0.0	0.0	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	59.3
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



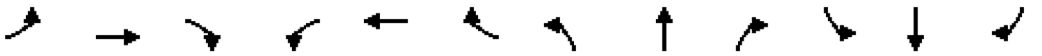
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	1778	71	495	2038	262	90	91	292	683	236	183
Future Volume (veh/h)	79	1778	71	495	2038	262	90	91	292	683	236	183
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.94	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	1976	79	550	2264	291	120	121	389	854	295	229
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.75	0.75	0.75	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	129	2542	102	593	3026	1145	164	207	330	909	1164	564
Arrive On Green	0.04	0.34	0.34	0.17	0.47	0.47	0.05	0.11	0.11	0.26	0.33	0.33
Sat Flow, veh/h	3456	7564	302	3456	6434	1549	3563	1870	2987	3456	3554	1541
Grp Volume(v), veh/h	88	1583	472	550	2264	291	120	121	389	854	295	229
Grp Sat Flow(s),veh/h/ln	1728	1515	1806	1728	1609	1549	1781	1870	1494	1728	1777	1541
Q Serve(g_s), s	4.0	37.6	37.6	25.1	46.0	9.9	5.3	9.8	17.7	38.7	9.7	17.7
Cycle Q Clear(g_c), s	4.0	37.6	37.6	25.1	46.0	9.9	5.3	9.8	17.7	38.7	9.7	17.7
Prop In Lane	1.00		0.17	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	129	2037	607	593	3026	1145	164	207	330	909	1164	564
V/C Ratio(X)	0.68	0.78	0.78	0.93	0.75	0.25	0.73	0.58	1.18	0.94	0.25	0.41
Avail Cap(c_a), veh/h	222	2037	607	618	3026	1145	220	207	330	963	1164	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.1	47.7	47.7	65.3	34.6	7.0	75.4	67.7	71.1	57.7	39.4	37.9
Incr Delay (d2), s/veh	6.2	3.0	9.5	19.9	1.7	0.5	7.5	3.9	105.0	16.0	0.1	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	14.4	18.3	12.6	18.0	3.2	2.6	4.9	11.5	18.7	4.3	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	82.3	50.7	57.2	85.2	36.4	7.5	82.8	71.5	176.2	73.7	39.6	38.4
LnGrp LOS	F	D	E	F	D	A	F	E	F	E	D	D
Approach Vol, veh/h		2143			3105			630			1378	
Approach Delay, s/veh		53.4			42.3			138.3			60.5	
Approach LOS		D			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	31.9	58.7	11.8	57.7	10.4	80.2	46.5	23.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	28.6	50.1	9.9	52.4	10.3	68.4	44.6	17.7
Max Q Clear Time (g_c+I1), s	27.1	39.6	7.3	19.7	6.0	48.0	40.7	19.7
Green Ext Time (p_c), s	0.4	8.3	0.1	2.7	0.1	16.7	1.4	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	57.4
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



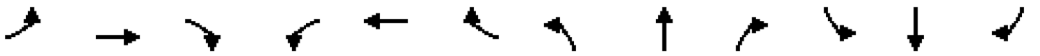
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	160	175	256	234	112	106	260	174	127	560	89
Future Volume (veh/h)	53	160	175	256	234	112	106	260	174	127	560	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	190	208	275	252	120	131	321	215	148	651	103
Peak Hour Factor	0.84	0.84	0.84	0.93	0.93	0.93	0.81	0.81	0.81	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	81	214	234	340	592	487	189	1467	638	206	1485	636
Arrive On Green	0.05	0.26	0.26	0.10	0.32	0.32	0.05	0.41	0.41	0.06	0.42	0.42
Sat Flow, veh/h	1781	811	888	3456	1870	1540	3456	3554	1546	3456	3554	1521
Grp Volume(v), veh/h	63	0	398	275	252	120	131	321	215	148	651	103
Grp Sat Flow(s),veh/h/ln	1781	0	1699	1728	1870	1540	1728	1777	1546	1728	1777	1521
Q Serve(g_s), s	4.1	0.0	26.1	9.0	12.3	6.7	4.3	6.8	11.0	4.9	15.1	4.9
Cycle Q Clear(g_c), s	4.1	0.0	26.1	9.0	12.3	6.7	4.3	6.8	11.0	4.9	15.1	4.9
Prop In Lane	1.00		0.52	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	0	447	340	592	487	189	1467	638	206	1485	636
V/C Ratio(X)	0.77	0.00	0.89	0.81	0.43	0.25	0.69	0.22	0.34	0.72	0.44	0.16
Avail Cap(c_a), veh/h	163	0	573	465	709	584	286	1467	638	286	1485	636
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.76	0.76	0.76	0.80	0.80	0.80	0.83	0.83	0.83
Uniform Delay (d), s/veh	54.8	0.0	41.1	51.2	31.3	29.4	53.9	22.0	23.2	53.6	24.1	21.1
Incr Delay (d2), s/veh	14.4	0.0	13.3	5.7	0.4	0.2	3.7	0.3	1.1	4.3	0.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	12.4	4.1	5.6	2.5	1.9	2.8	4.1	2.2	6.3	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	69.2	0.0	54.4	56.9	31.7	29.6	57.6	22.3	24.4	57.9	24.8	21.5
LnGrp LOS	E		D	E	C	C	E	C	C	E	C	C
Approach Vol, veh/h		461			647			667			902	
Approach Delay, s/veh		56.4			42.0			29.9			29.9	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.3	53.3	15.8	35.6	10.7	53.9	9.7	41.7
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	32.6	15.6	* 39	9.6	* 33	10.6	44.0
Max Q Clear Time (g_c+I1), s	6.9	13.0	11.0	28.1	6.3	17.1	6.1	14.3
Green Ext Time (p_c), s	0.1	2.6	0.4	1.8	0.1	4.1	0.0	1.9

Intersection Summary	
HCM 7th Control Delay, s/veh	37.4
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	180	100	63	363	119	33	73	7	143	280	156
Future Volume (veh/h)	104	180	100	63	363	119	33	73	7	143	280	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	121	209	116	74	427	140	44	97	9	166	326	181
Peak Hour Factor	0.86	0.86	0.86	0.85	0.85	0.85	0.75	0.75	0.75	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	155	690	365	94	722	234	63	584	53	210	573	310
Arrive On Green	0.09	0.31	0.31	0.05	0.28	0.28	0.04	0.18	0.18	0.12	0.26	0.26
Sat Flow, veh/h	1781	2221	1174	1781	2616	848	1781	3279	299	1781	2198	1189
Grp Volume(v), veh/h	121	165	160	74	288	279	44	52	54	166	262	245
Grp Sat Flow(s),veh/h/ln	1781	1777	1618	1781	1777	1686	1781	1777	1802	1781	1777	1610
Q Serve(g_s), s	3.7	3.9	4.2	2.3	7.8	8.0	1.4	1.4	1.4	5.1	7.1	7.4
Cycle Q Clear(g_c), s	3.7	3.9	4.2	2.3	7.8	8.0	1.4	1.4	1.4	5.1	7.1	7.4
Prop In Lane	1.00		0.73	1.00		0.50	1.00		0.17	1.00		0.74
Lane Grp Cap(c), veh/h	155	552	503	94	491	466	63	317	321	210	463	420
V/C Ratio(X)	0.78	0.30	0.32	0.79	0.59	0.60	0.70	0.16	0.17	0.79	0.57	0.58
Avail Cap(c_a), veh/h	220	949	865	192	920	874	192	860	872	275	930	843
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	14.6	14.7	26.1	17.4	17.5	26.6	19.4	19.4	23.9	17.9	18.0
Incr Delay (d2), s/veh	10.8	0.3	0.4	13.5	1.1	1.2	12.9	0.2	0.2	11.0	1.1	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.4	1.4	1.2	2.9	2.9	0.8	0.5	0.6	2.5	2.6	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	35.8	14.9	15.1	39.6	18.6	18.7	39.5	19.6	19.7	34.9	19.0	19.3
LnGrp LOS	D	B	B	D	B	B	D	B	B	C	B	B
Approach Vol, veh/h		446			641			150			673	
Approach Delay, s/veh		20.6			21.1			25.5			23.0	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	22.2	6.4	19.8	9.3	20.3	11.0	15.2
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.0	29.8	6.0	29.2	6.9	28.9	8.6	* 27
Max Q Clear Time (g_c+I1), s	4.3	6.2	3.4	9.4	5.7	10.0	7.1	3.4
Green Ext Time (p_c), s	0.0	1.9	0.0	2.8	0.0	3.3	0.1	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	22.0
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	28	90	0	92	13	0
Future Vol, veh/h	28	90	0	92	13	0
Peak Hour Factor	0.82	0.82	0.75	0.75	0.56	0.56
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	34	110	0	123	23	0
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.3	7.8	7.8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	100%	0%	0%
Vol Thru, %	0%	24%	100%
Vol Right, %	0%	76%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	13	118	92
LT Vol	13	0	0
Through Vol	0	28	92
RT Vol	0	90	0
Lane Flow Rate	23	144	123
Geometry Grp	1	1	1
Degree of Util (X)	0.03	0.144	0.139
Departure Headway (Hd)	4.588	3.609	4.083
Convergence, Y/N	Yes	Yes	Yes
Cap	770	989	877
Service Time	2.674	1.652	2.115
HCM Lane V/C Ratio	0.03	0.146	0.14
HCM Control Delay, s/veh	7.8	7.3	7.8
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.5	0.5

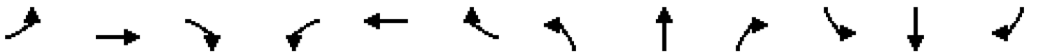
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	183	303	45	218	139	157	347	25	135	566	109
Future Volume (veh/h)	110	183	303	45	218	139	157	347	25	135	566	109
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.95	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	133	220	365	60	291	185	185	408	29	165	690	133
Peak Hour Factor	0.83	0.83	0.83	0.75	0.75	0.75	0.85	0.85	0.85	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	156	216	358	77	320	203	218	939	66	202	785	151
Arrive On Green	0.09	0.35	0.35	0.04	0.30	0.30	0.12	0.28	0.28	0.11	0.27	0.27
Sat Flow, veh/h	1781	621	1030	1781	1055	671	1781	3353	237	1781	2942	566
Grp Volume(v), veh/h	133	0	585	60	0	476	185	215	222	165	416	407
Grp Sat Flow(s),veh/h/ln	1781	0	1651	1781	0	1726	1781	1777	1813	1781	1777	1732
Q Serve(g_s), s	6.4	0.0	30.1	2.9	0.0	23.0	8.8	8.6	8.7	7.8	19.4	19.5
Cycle Q Clear(g_c), s	6.4	0.0	30.1	2.9	0.0	23.0	8.8	8.6	8.7	7.8	19.4	19.5
Prop In Lane	1.00		0.62	1.00		0.39	1.00		0.13	1.00		0.33
Lane Grp Cap(c), veh/h	156	0	574	77	0	523	218	498	508	202	474	462
V/C Ratio(X)	0.85	0.00	1.02	0.78	0.00	0.91	0.85	0.43	0.44	0.82	0.88	0.88
Avail Cap(c_a), veh/h	156	0	574	107	0	552	218	498	508	312	513	500
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.0	0.0	28.3	41.0	0.0	29.1	37.2	25.5	25.6	37.5	30.4	30.4
Incr Delay (d2), s/veh	33.6	0.0	42.6	21.4	0.0	18.8	25.7	0.6	0.6	9.2	15.2	15.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	18.1	1.7	0.0	11.9	5.2	3.5	3.6	3.8	9.8	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	72.6	0.0	70.9	62.4	0.0	47.9	62.9	26.1	26.2	46.8	45.6	46.2
LnGrp LOS	E		F	E		D	E	C	C	D	D	D
Approach Vol, veh/h		718			536			622			988	
Approach Delay, s/veh		71.2			49.5			37.1			46.0	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	29.7	8.1	35.0	15.0	28.5	12.0	31.1
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	15.2	* 21	5.2	30.1	10.6	25.0	7.6	27.7
Max Q Clear Time (g_c+I1), s	9.8	10.7	4.9	32.1	10.8	21.5	8.4	25.0
Green Ext Time (p_c), s	0.2	1.7	0.0	0.0	0.0	1.6	0.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	51.1
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



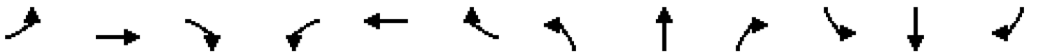
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	473	2017	112	158	1400	242	209	516	147	383	359	305
Future Volume (veh/h)	473	2017	112	158	1400	242	209	516	147	383	359	305
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	493	2101	117	178	1573	272	235	580	165	421	395	335
Peak Hour Factor	0.96	0.96	0.96	0.89	0.89	0.89	0.89	0.89	0.89	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	530	2411	860	207	1934	796	281	758	326	460	943	407
Arrive On Green	0.15	0.47	0.47	0.06	0.38	0.38	0.08	0.21	0.21	0.13	0.27	0.27
Sat Flow, veh/h	3456	5106	1549	3456	5106	1545	3456	3554	1528	3456	3554	1535
Grp Volume(v), veh/h	493	2101	117	178	1573	272	235	580	165	421	395	335
Grp Sat Flow(s),veh/h/ln	1728	1702	1549	1728	1702	1545	1728	1777	1528	1728	1777	1535
Q Serve(g_s), s	22.5	59.0	5.8	8.2	44.3	16.7	10.7	24.5	15.2	19.2	14.7	32.8
Cycle Q Clear(g_c), s	22.5	59.0	5.8	8.2	44.3	16.7	10.7	24.5	15.2	19.2	14.7	32.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	530	2411	860	207	1934	796	281	758	326	460	943	407
V/C Ratio(X)	0.93	0.87	0.14	0.86	0.81	0.34	0.84	0.76	0.51	0.91	0.42	0.82
Avail Cap(c_a), veh/h	531	2411	860	207	1934	796	361	911	392	467	1028	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88	1.00	1.00	1.00
Uniform Delay (d), s/veh	66.9	37.9	17.3	74.5	44.6	23.1	72.5	59.1	55.5	68.5	48.6	55.2
Incr Delay (d2), s/veh	23.0	4.7	0.3	28.4	3.9	1.2	11.4	2.8	1.1	22.4	0.3	11.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.6	25.0	2.2	4.4	19.1	6.3	5.2	11.3	5.9	9.9	6.6	13.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.9	42.6	17.6	102.9	48.5	24.3	83.8	62.0	56.6	90.9	48.9	66.3
LnGrp LOS	F	D	B	F	D	C	F	E	E	F	D	E
Approach Vol, veh/h		2711			2023			980			1151	
Approach Delay, s/veh		50.1			50.0			66.3			69.3	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	80.8	17.4	47.8	29.0	65.9	25.7	39.4
Change Period (Y+Rc), s	4.4	5.3	4.4	* 5.3	4.4	* 5.3	4.4	5.3
Max Green Setting (Gmax), s	9.6	68.4	16.7	* 46	24.6	* 54	21.6	41.0
Max Q Clear Time (g_c+I1), s	10.2	61.0	12.7	34.8	24.5	46.3	21.2	26.5
Green Ext Time (p_c), s	0.0	6.4	0.3	2.9	0.0	5.7	0.1	3.7

Intersection Summary	
HCM 7th Control Delay, s/veh	55.6
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.



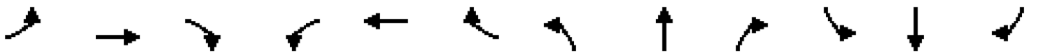
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	348	2031	95	447	1671	684	168	312	437	575	218	136
Future Volume (veh/h)	348	2031	95	447	1671	684	168	312	437	575	218	136
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	374	2184	102	486	1816	743	193	359	502	646	245	153
Peak Hour Factor	0.93	0.93	0.93	0.92	0.92	0.92	0.87	0.87	0.87	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	416	2602	121	525	2432	906	239	335	546	703	1122	677
Arrive On Green	0.12	0.35	0.35	0.15	0.38	0.38	0.07	0.18	0.18	0.20	0.32	0.32
Sat Flow, veh/h	3456	7505	350	3456	6434	1545	3563	1870	3042	3456	3554	1540
Grp Volume(v), veh/h	374	1763	523	486	1816	743	193	359	502	646	245	153
Grp Sat Flow(s),veh/h/ln	1728	1515	1796	1728	1609	1545	1781	1870	1521	1728	1777	1540
Q Serve(g_s), s	17.1	42.9	42.9	22.2	39.1	60.5	8.5	28.7	26.0	29.3	8.1	10.0
Cycle Q Clear(g_c), s	17.1	42.9	42.9	22.2	39.1	60.5	8.5	28.7	26.0	29.3	8.1	10.0
Prop In Lane	1.00		0.20	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	416	2101	622	525	2432	906	239	335	546	703	1122	677
V/C Ratio(X)	0.90	0.84	0.84	0.93	0.75	0.82	0.81	1.07	0.92	0.92	0.22	0.23
Avail Cap(c_a), veh/h	438	2101	622	531	2432	906	312	335	546	790	1139	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00
Uniform Delay (d), s/veh	69.4	48.2	48.2	67.0	43.1	27.0	73.6	65.7	64.5	62.4	40.2	28.2
Incr Delay (d2), s/veh	20.4	4.2	12.8	22.3	2.1	8.2	9.0	63.3	17.4	14.8	0.1	0.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.7	16.6	21.2	11.3	15.7	23.9	4.2	19.4	11.3	14.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	89.8	52.4	61.0	89.3	45.3	35.2	82.6	129.0	82.0	77.2	40.3	28.4
LnGrp LOS	F	D	E	F	D	D	F	F	F	E	D	C
Approach Vol, veh/h		2660			3045			1054			1044	
Approach Delay, s/veh		59.4			49.8			98.1			61.4	
Approach LOS		E			D			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.7	60.4	15.1	55.8	23.7	65.4	36.9	34.0
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	5.3
Max Green Setting (Gmax), s	24.6	51.1	14.0	51.3	20.3	55.4	36.6	28.7
Max Q Clear Time (g_c+I1), s	24.2	44.9	10.5	12.0	19.1	62.5	31.3	30.7
Green Ext Time (p_c), s	0.1	5.4	0.2	2.1	0.2	0.0	1.2	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	61.1
HCM 7th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	325	106	226	313	117	203	656	609	164	322	81
Future Volume (veh/h)	84	325	106	226	313	117	203	656	609	164	322	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.98	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	93	361	118	251	348	130	209	676	628	178	350	88
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.97	0.97	0.97	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	386	126	300	577	475	260	1491	649	227	1457	623
Arrive On Green	0.06	0.29	0.29	0.09	0.31	0.31	0.10	0.56	0.56	0.07	0.41	0.41
Sat Flow, veh/h	1781	1346	440	3456	1870	1540	3456	3554	1547	3456	3554	1520
Grp Volume(v), veh/h	93	0	479	251	348	130	209	676	628	178	350	88
Grp Sat Flow(s),veh/h/ln	1781	0	1786	1728	1870	1540	1728	1777	1547	1728	1777	1520
Q Serve(g_s), s	7.0	0.0	35.6	9.7	21.5	8.7	8.0	15.3	53.0	6.9	8.8	4.9
Cycle Q Clear(g_c), s	7.0	0.0	35.6	9.7	21.5	8.7	8.0	15.3	53.0	6.9	8.8	4.9
Prop In Lane	1.00		0.25	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	115	0	512	300	577	475	260	1491	649	227	1457	623
V/C Ratio(X)	0.81	0.00	0.94	0.84	0.60	0.27	0.80	0.45	0.97	0.78	0.24	0.14
Avail Cap(c_a), veh/h	178	0	566	320	578	475	340	1491	649	244	1457	623
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.80	0.80	0.80	0.29	0.29	0.29	0.89	0.89	0.89
Uniform Delay (d), s/veh	62.8	0.0	47.3	61.1	39.9	35.5	60.2	20.8	29.2	62.6	26.3	25.1
Incr Delay (d2), s/veh	14.0	0.0	22.0	13.7	1.4	0.2	3.1	0.3	12.8	13.1	0.3	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	0.0	18.7	4.8	10.1	3.3	3.5	5.6	19.4	3.4	3.7	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	76.8	0.0	69.3	74.9	41.3	35.7	63.3	21.1	41.9	75.7	26.6	25.5
LnGrp LOS	E		E	E	D	D	E	C	D	E	C	C
Approach Vol, veh/h		572			729			1513			616	
Approach Delay, s/veh		70.5			51.9			35.6			40.6	
Approach LOS		E			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.3	62.5	16.2	44.0	14.6	61.2	13.2	47.0
Change Period (Y+Rc), s	4.4	5.4	4.4	* 5	4.4	* 5.4	4.4	5.0
Max Green Setting (Gmax), s	9.6	51.6	12.6	* 43	13.4	* 48	13.6	42.0
Max Q Clear Time (g_c+I1), s	8.9	55.0	11.7	37.6	10.0	10.8	9.0	23.5
Green Ext Time (p_c), s	0.0	0.0	0.1	1.4	0.2	2.6	0.1	2.3

Intersection Summary	
HCM 7th Control Delay, s/veh	45.8
HCM 7th LOS	D

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	328	360	124	45	204	186	74	178	37	115	131	157
Future Volume (veh/h)	328	360	124	45	204	186	74	178	37	115	131	157
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.96	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	353	387	133	47	215	196	79	189	39	137	156	187
Peak Hour Factor	0.93	0.93	0.93	0.95	0.95	0.95	0.94	0.94	0.94	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	404	1069	362	62	394	337	101	499	100	173	375	322
Arrive On Green	0.23	0.41	0.41	0.03	0.22	0.22	0.06	0.17	0.17	0.10	0.21	0.21
Sat Flow, veh/h	1781	2587	876	1781	1781	1526	1781	2924	588	1781	1777	1528
Grp Volume(v), veh/h	353	264	256	47	214	197	79	113	115	137	156	187
Grp Sat Flow(s),veh/h/ln	1781	1777	1687	1781	1777	1530	1781	1777	1734	1781	1777	1528
Q Serve(g_s), s	12.8	6.8	7.0	1.7	7.1	7.7	2.9	3.8	3.9	5.0	5.1	7.4
Cycle Q Clear(g_c), s	12.8	6.8	7.0	1.7	7.1	7.7	2.9	3.8	3.9	5.0	5.1	7.4
Prop In Lane	1.00		0.52	1.00		1.00	1.00		0.34	1.00		1.00
Lane Grp Cap(c), veh/h	404	734	697	62	393	338	101	303	296	173	375	322
V/C Ratio(X)	0.87	0.36	0.37	0.76	0.55	0.58	0.78	0.37	0.39	0.79	0.42	0.58
Avail Cap(c_a), veh/h	496	1082	1027	173	760	655	136	718	701	192	763	656
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	13.5	13.6	32.0	23.1	23.3	31.1	24.5	24.6	29.5	22.8	23.7
Incr Delay (d2), s/veh	13.6	0.3	0.3	16.9	1.2	1.6	18.4	0.8	0.8	18.4	0.7	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	2.5	2.4	1.0	2.9	2.7	1.7	1.6	1.6	2.9	2.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.5	13.8	13.9	48.9	24.2	24.9	49.6	25.3	25.4	47.9	23.5	25.4
LnGrp LOS	D	B	B	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		873			458			307			480	
Approach Delay, s/veh		23.8			27.0			31.6			31.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.7	32.5	8.2	19.4	19.6	19.7	10.9	16.7
Change Period (Y+Rc), s	4.4	4.9	4.4	5.3	4.4	4.9	4.4	* 5.3
Max Green Setting (Gmax), s	6.5	40.7	5.1	28.7	18.6	28.6	7.2	* 27
Max Q Clear Time (g_c+I1), s	3.7	9.0	4.9	9.4	14.8	9.7	7.0	5.9
Green Ext Time (p_c), s	0.0	3.3	0.0	1.9	0.4	2.3	0.0	1.2

Intersection Summary	
HCM 7th Control Delay, s/veh	27.3
HCM 7th LOS	C

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	68	29	2	42	77	1
Future Vol, veh/h	68	29	2	42	77	1
Peak Hour Factor	0.80	0.80	0.84	0.84	0.62	0.62
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	85	36	2	50	124	2
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay, s/veh	7.8	7.7	8.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	99%	0%	5%
Vol Thru, %	0%	70%	95%
Vol Right, %	1%	30%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	78	97	44
LT Vol	77	0	2
Through Vol	0	68	42
RT Vol	1	29	0
Lane Flow Rate	126	121	52
Geometry Grp	1	1	1
Degree of Util (X)	0.155	0.135	0.064
Departure Headway (Hd)	4.424	4.017	4.37
Convergence, Y/N	Yes	Yes	Yes
Cap	800	877	824
Service Time	2.507	2.117	2.37
HCM Lane V/C Ratio	0.158	0.138	0.063
HCM Control Delay, s/veh	8.3	7.8	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.5	0.5	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	147	357	34	170	129	196	1057	63	111	381	86
Future Volume (veh/h)	225	147	357	34	170	129	196	1057	63	111	381	86
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.96	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	262	171	415	38	191	145	225	1215	72	128	438	99
Peak Hour Factor	0.86	0.86	0.86	0.89	0.89	0.89	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	286	171	416	49	221	168	252	1321	78	153	942	211
Arrive On Green	0.16	0.36	0.36	0.03	0.23	0.23	0.14	0.39	0.39	0.03	0.11	0.11
Sat Flow, veh/h	1781	475	1152	1781	970	737	1781	3399	201	1781	2857	639
Grp Volume(v), veh/h	262	0	586	38	0	336	225	634	653	128	271	266
Grp Sat Flow(s),veh/h/ln	1781	0	1626	1781	0	1707	1781	1777	1824	1781	1777	1719
Q Serve(g_s), s	19.7	0.0	48.9	2.9	0.0	25.7	16.9	46.2	46.4	9.7	19.4	19.8
Cycle Q Clear(g_c), s	19.7	0.0	48.9	2.9	0.0	25.7	16.9	46.2	46.4	9.7	19.4	19.8
Prop In Lane	1.00		0.71	1.00		0.43	1.00		0.11	1.00		0.37
Lane Grp Cap(c), veh/h	286	0	587	49	0	388	252	690	708	153	586	567
V/C Ratio(X)	0.91	0.00	1.00	0.78	0.00	0.86	0.89	0.92	0.92	0.84	0.46	0.47
Avail Cap(c_a), veh/h	314	0	587	68	0	388	351	690	708	160	586	567
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	56.2	0.0	43.4	65.7	0.0	50.5	57.4	39.5	39.6	65.1	49.3	49.4
Incr Delay (d2), s/veh	28.6	0.0	36.6	30.6	0.0	18.0	18.7	19.3	19.3	27.3	2.3	2.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	25.4	1.7	0.0	12.9	8.8	23.2	23.9	5.8	9.7	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	84.7	0.0	80.0	96.3	0.0	68.5	76.1	58.9	58.9	92.5	51.6	51.9
LnGrp LOS	F		E	F		E	E	E	E	F	D	D
Approach Vol, veh/h		848			374			1512			665	
Approach Delay, s/veh		81.5			71.4			61.4			59.6	
Approach LOS		F			E			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.6	58.2	8.1	54.0	23.6	50.2	26.3	35.9
Change Period (Y+Rc), s	4.0	* 5.4	4.4	4.9	4.4	5.4	4.4	4.9
Max Green Setting (Gmax), s	12.2	* 51	5.2	49.1	26.8	35.8	24.0	30.3
Max Q Clear Time (g_c+I1), s	11.7	48.4	4.9	50.9	18.9	21.8	21.7	27.7
Green Ext Time (p_c), s	0.0	2.0	0.0	0.0	0.4	2.6	0.2	0.5

Intersection Summary	
HCM 7th Control Delay, s/veh	67.2
HCM 7th LOS	E

Notes

* HCM 7th computational engine requires equal clearance times for the phases crossing the barrier.

END OF APPENDICES